

THE HEALTH OF BRADFORD 1951

THE POPULATION OF BRADFORD, 1801-1951

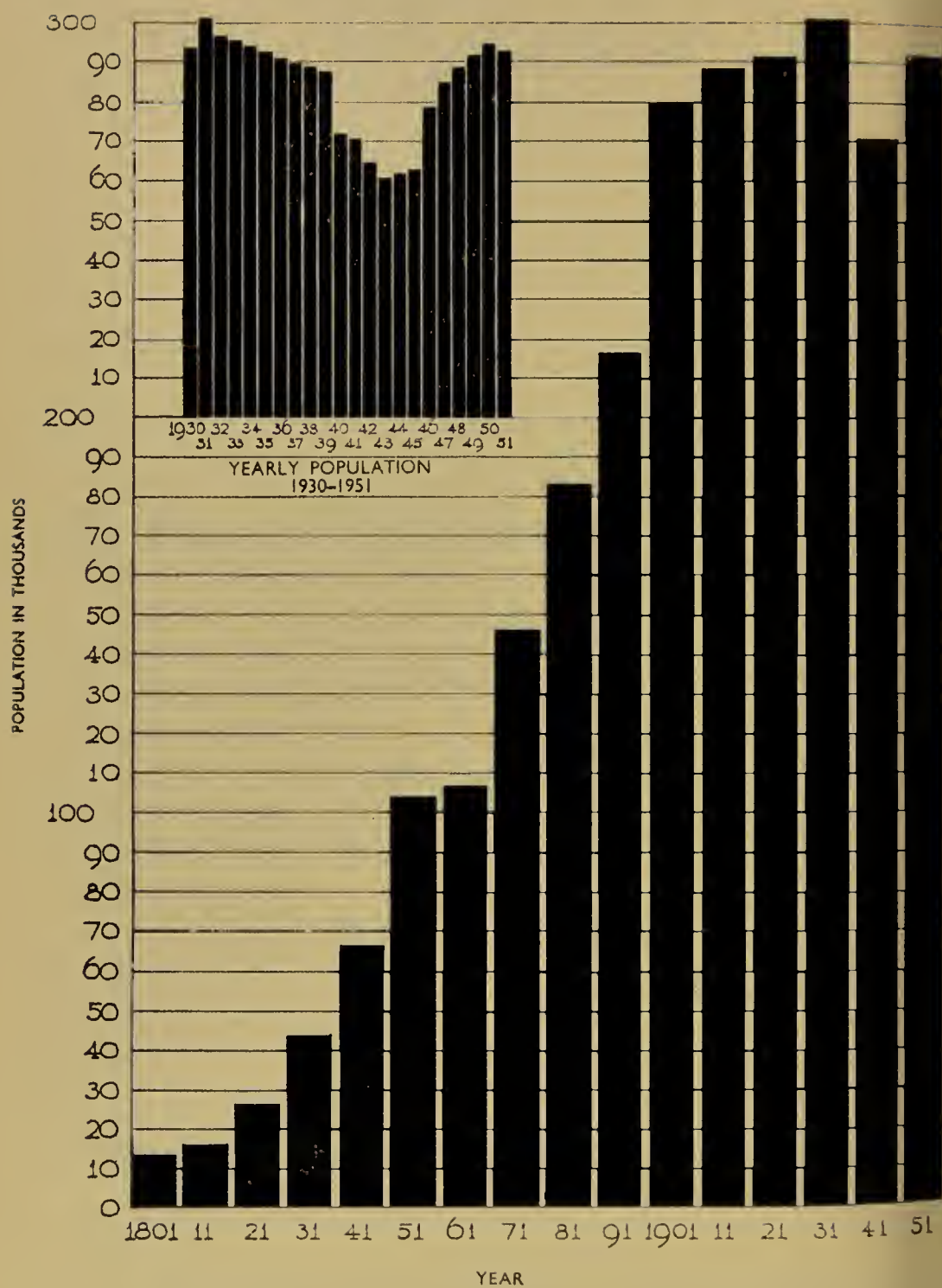


Fig. I

The Health of Bradford

1951

THE ANNUAL REPORT OF THE MEDICAL OFFICER
OF HEALTH

JOHN DOUGLAS, M.D., D.P.H.

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Preface

The following report on the health of the City has been compiled along the lines laid down by the Ministry of Health.

The chief vital statistics for the year 1951, with comparable figures for 1950 are as follows:—

	1951	1950	
Population	292,300	294,300	
Birth Rate	16·4	16·7	per 1,000 of the population
Death Rate	15·4	13·9	„ „ „
Death rate from certain infectious diseases	0·15	0·11	„ „ „
Tuberculosis death rate	0·36	0·35	„ „ „
Infantile Mortality Rate	43·6	38·0	per 1,000 live births
Still-birth rate	23·9	22·3	per 1,000 live and still-births
Maternal Mortality Rate	1·23	1·4	„ „ „

The birth rate of 16·4 was again slightly lower, in continuance of a trend in evidence since 1946 when the highest rate (22·2) for 40 years was recorded. It was still considerably above that of the immediate pre-war period (13·5) and higher than that for England and Wales (15·5).

The death rate increased from 13·9 to 14·9 per thousand of the population due to a rise in the number of deaths of persons over 65 years of age, the age group most adversely affected by the influenza epidemic at the beginning of the year. This also took its toll of infants, and the infantile mortality rate rose from the record low figure of 38 in 1950 to 43·6 per thousand live births.

Fourteen per cent of deaths of persons 65 years and over, and 36 per cent of deaths of infants under one year of age were due to respiratory infection. The influenza epidemic, although not of the proportion of the pandemic of 1918–19 when there were 1,329 deaths certified as due to this disease, nevertheless accounted for 106 deaths and a large amount of sickness, the extent of which is shown in some degree by the diagram on page 68 of this report.

The City has been comparatively free from influenza since 1943 when there were 115 deaths.

Cases of anterior poliomyelitis numbered 13, a considerable decrease from the 54 of 1950. Two patients died, and of the remainder only 1 was left with severe disability and three with milder disabilities.

Detailed comment on the other infectious diseases is made in the body of the report, but it is noteworthy that the 291 notifications of scarlet fever was the lowest number ever recorded in the history of the City, and that there was only 1 case of diphtheria, following the diphtheria-free year of 1950.

An outbreak of paratyphoid fever in the autumn rudely disturbed any feeling of complacency which might have been engendered by such results. One hundred and ten pupils of a large school were infected with *Salmonella paratyphi* B. There were some 700 pupils at risk, the majority of whom lived in Bradford—but adding to the difficulties of control, many of the pupils came from towns and villages in the West Riding, far from Bradford. Fortunately the disease was of a mild type with no fatalities and responded readily to the antibiotic drug chloromycetin. Nevertheless it was only brought speedily under control by virtue of the readily obtained co-operation of the parents and the staff of the school and the really excellent team work of general practitioners, sanitary inspectors, health visitors and medical officers of adjacent areas.

Social Circumstances and Vital Statistics

POPULATION AND SOCIAL CIRCUMSTANCES

METEOROLOGY

BIRTHS

DEATHS

STILL BIRTHS AND INFANTILE MORTALITY

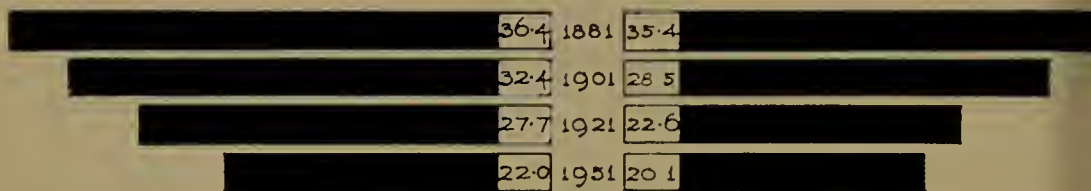
MATERNAL MORTALITY

AGE PROPORTION OF POPULATION

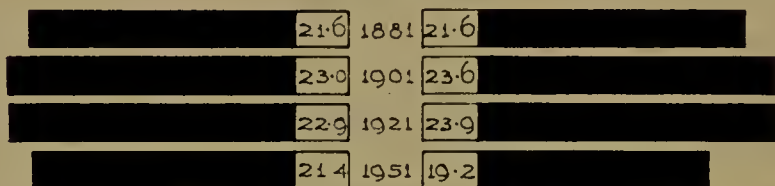
ENGLAND AND WALES

BRADFORD

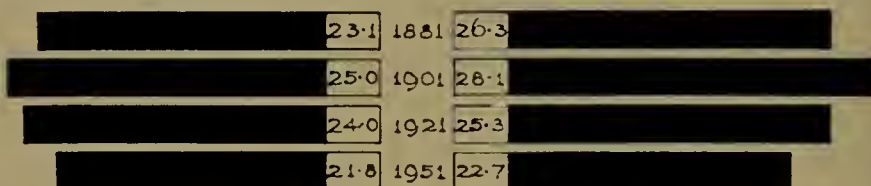
% YEAR %



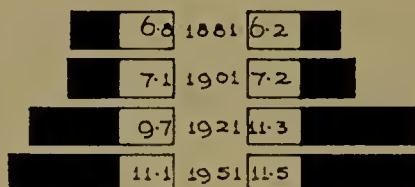
CHILDREN 0-15



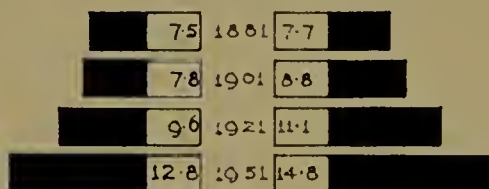
MALES 15-45



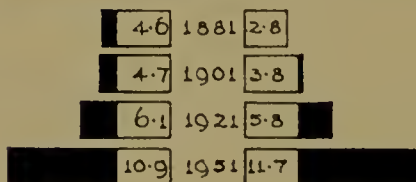
FEMALES 15-45



MALES 45-65



FEMALES 45-65



PERSONS 65 AND OVER

PERCENTAGE OF POPULATION

(Based on 1950 Estimate of Age Proportion of Population)

Social Circumstances and Vital Statistics**Population and Social Circumstances of the Area**

The Registrar General has issued a preliminary report on the fifteenth census of the population of England and Wales, and it is now possible for the first time since 1931 (there was no census in 1941) to give the actual instead of the estimated population of Bradford as it was on the 8th April, 1951. There were 292,394 persons resident in the City—136,078 males and 156,316 females. This total is less than the number returned at the previous enumeration in 1931 by 6,298—representing a decrease of 2·1 per cent over the twenty years. This compares with increases of 9·5 per cent for the population of England and Wales, 2·2 per cent for the West Yorkshire concentration centred on Leeds and Bradford and 1·6 per cent for all county boroughs. The National Register count of civilians made late in 1939 gives an intermediate figure representative of the immediate pre-war position and indicates that there was a 3·8 per cent decrease in Bradford's population between 1931 and 1939—which was probably made up to the extent of 1·7 per cent between 1939 and 1951—giving an overall decrease (1939–1951) of 2·1 per cent.

On casual examination of these figures and without knowledge of local circumstances, it would seem that Bradford has regressed during the twenty years. There may be 2 per cent fewer persons living within the City boundaries than there were in 1931, but it is a reasonable certainty that there has been much more than a 2 per cent exodus of persons whose place of employment is in Bradford to domiciles situated in the contiguous areas of Shipley, Bingley, Aireborough and the like. In fact the population, without exception, of each of the areas con-

tiguous to Bradford, has increased in proportions varying from 5·2 to 34·8 per cent. The aggregate population (123,665) of the following areas contiguous to Bradford—Shipley, Baildon, Queensbury and Shelf, Aireborough, Pudsey, Bingley, Horsforth—has increased by 21,499 persons to 145,164. This increase of 17·4 per cent compares with 9·5 per cent for the whole of England and Wales, and 2·2 per cent for the West Riding concentration, with Leeds and Bradford as centres. Assuming an increase of 2·2 per cent for these areas, similar to that for the concentration of which they form part, the increase in the population would have been 2,720 instead of the actual increase of 21,499—an excess of 18,779, of whom at least 12,869 are likely to have Bradford as their place of work. This figure, 12,869, represents a 2·2 per cent increase of the Bradford population, which is the percentage increase of the concentration as a whole.

This, of course, is mere supposition, and a more valid appraisalment of the situation will be possible when the Registrar General releases further tables indicating places of work of the enumerated population.

An extremely interesting fact emerges from the preliminary report on the census. Eighty-eight per cent of the decrease of 6,298 persons is represented by a diminution in the number of females. There were 156,316 females in 1951 compared with 161,867 in 1931—a decrease of 3·4 per cent. Males numbered 136,078 in 1951 against 136,825—a decrease of 0·54 per cent.

Comparative figures for the sexes, for the years 1921, 1931 and 1951 for Bradford, England and Wales, and various divisions of the country, are shown in the following table.

TABLE 1

Proportion of Females to Males (per thousand)

				1921	1931	1951
England and Wales	..	..	..	1,096	1,088	1,081
All Urban areas	..	..	..	1,113	1,106	1,106
All Rural areas	..	..	..	1,020	1,009	983
BRADFORD	..	..	..	—	1,183	1,149
<i>Standard Regions:—</i>						
Northern	..	..	..	1,022	1,021	1,039
East and West Ridings	..	..	..	1,079	1,074	1,083
North Western	..	..	..	1,113	1,115	1,108
North Midland	..	..	..	1,057	1,047	1,038
Midland	..	..	..	1,067	1,064	1,041
Eastern	..	..	..	1,119	1,069	1,051
London and South Eastern	..	..	..	1,154	1,142	1,136
Southern	..	..	..	1,092	1,074	1,049
South Western	..	..	..	1,136	1,116	1,071
Wales	..	..	..	997	1,004	1,045

The sex distribution differs widely in different parts of the country. In the southern counties the female preponderance is high because of their special attractiveness to the retired and elderly classes. Similarly London, with its favourable employment opportunities offered to women, has a high ratio, but not so high as Bradford, which also offers more than the usual opportunities.

The recent issue of a further publication by the Registrar General, "One per cent Sample Tables" gives, amongst other things, more facts concerning women and their employment. The tables, as far as they concern Bradford, are given below, and in addition, certain statistics with respect to other towns of size comparable to Bradford have been made available by the courtesy of the City Treasurer. In the following tables the figures before the comma mark indicate thousands.

TABLE 2

Total Population by Age and Marital Condition—BRADFORD

Total Population: 292,400.

<i>Marital Condition:</i>				Males	Females	Total	%
Single..	..	..		52,8	62,3	115,1	39.4
Married	..	..		74,8	75,2	150,0	51.3
Widowed or Divorced				5,6	21,7	27,3	9.3
Total	..	..		133,2	159,2	292,4	100.0

<i>Age Last Birthday:</i>							
0-4	..	..		13,0	13,0	26,0	8.9
5-9	..	..		10,1	8,7	18,8	6.4
10-14	..	..		8,5	9,0	17,5	6.0
15-19	..	..		6,8	8,8	15,6	5.4
20-24	..	..		7,2	9,8	17,0	5.8
25-29	..	..		9,5	12,2	21,7	7.4
30-34	..	..		10,7	10,7	21,4	7.3
35-39	..	..		11,6	10,7	22,3	7.6
40-44	..	..		11,3	9,5	20,8	7.1
45-49	..	..		7,1	11,8	18,9	6.5
50-54	..	..		9,9	10,0	19,9	6.8
55-59	..	..		7,7	11,1	18,8	6.4
60-64	..	..		7,9	10,2	18,1	6.2
65-69	..	..		4,5	10,1	14,6	5.0
70-74	..	..		3,0	7,5	10,5	3.6
75-79	..	..		3,0	3,8	6,8	2.3
80-84	..	..		1,1	1,4	2,5	.9
85 and over	..	..		3	9	1,2	.4

By comparison with Coventry, Kingston-upon-Hull, Leicester, Newcastle-upon-Tyne, Nottingham and Stoke-on-Trent, which are towns of comparable size, Bradford, with 39.4 per cent of its population unmarried, has the lowest fraction of single persons, but has the highest proportion of widowed and divorced persons (9.3 per cent). With 51.3 per cent of its population married, it is relatively close to the proportion for England and Wales (50.6 per cent).

The age distribution of the population is as follows:—

	Pre-school age (0-4 years)		School age (5-14 years)		Working age (15-64 years)		Retirement age (65 years and over)		Total population
	No.	%	No.	%	No.	%	No.	%	
Bradford ..	26,000	8.9	36,300	12.4	194,500	66.5	35,600	12.2	292,400
England and Wales		8.5		13.7		66.8		11.0	

Bradford has rather a high proportion of persons of retirement age but the proportion in the school age group is less than the average for England and Wales.

TABLE 3 *Status Aggregates—Persons 15 years of age and over—
Bradford and England and Wales*

	Bradford				England and Wales			
	Males	Females	Total	%	Males	Females	Total	%
Occupied ..	89,9	57,1	147,0	63.9	14,078,6	6,229,8	20,308,4	59.7
Unoccupied and Retired ..	11,7	71,4	83,1	36.1	1,940,1	11,763,4	13,703,5	40.3
Total ..	101,6	128,5	230,1	100.0	16,018,7	17,993,2	34,011,9	100.0
<i>Status Aggregates:</i>								
Employers and Managers ..	6,3	1,0	7,3	3.2	921,4	147,5	1,068,9	3.1
Operative Social Classes I and II	6,2	3,8	10,0	4.4	1,191,9	682,5	1,874,4	5.5
Others	70,1	50,1	120,2	52.2	10,876,5	5,079,0	15,955,5	46.9
Part-time Workers (included in Operatives) ..	4	10,0	10,4	4.5	42,4	716,2	758,6	2.2
Working on own Account ..	5,3	1,4	6,7	2.9	820,1	219,3	1,039,4	3.1
Out of work ..	2,0	8	2,8	1.2	269,1	101,5	370,6	1.1

Of the population of Bradford over 15 years of age, 63.9 per cent are in employment and 36.1 per cent are unoccupied or retired. The number in employment is rather more than the average for England and Wales of 59.7 per cent. The number of female workers, 57,100, is higher than in any of the other six cities comparable with Bradford. Many of the females work part-time to the extent of 4.5 per cent of the total population. This is a much higher proportion than in any of the other cities.

TABLE 4 *Summary of Private Households, Rooms Occupied, Densities of Occupation and Household Arrangements, Bradford and England and Wales*

	Bradford	England and Wales
Households		
Total	95,2	13,043,5
In shared dwellings	5,7	1,968,1
Households of successive densities of occupation (persons per room)		
Over 3	—	23,8
3 and over 2	1,8	124,9
2 and over 1½	5,7	507,1
1½ and over 1	9,8	1,410,3
1 or less	77,9	10,977,4
Households without exclusive use of:-		
Water closet	17,1	2,797,4
Fixed bath	44,7	5,817,4
Both stove and sink	6,5	1,792,7
Rooms occupied by households	363,3	56,592,4
Population in households	280,2	41,569,1
Persons per household		
1951	2.94	3.19
1931	3.41	3.72
Persons per room		
1951	0.77	0.73
1931	0.88	0.83
Percentage of persons living more than 2 per room		
1951	4.03	2.16
1931	6.91	6.94

In Bradford there are 95,200 households. Apart from Kingston-upon-Hull, Bradford with 5,700 shared dwellings is in the most favourable position in this respect.

Bradford and Leicester are alone in having no households with a density of more than three persons per room. Bradford has 77,900 households occupying accommodation at a ratio of one person or less per room.

In this City the number of households without exclusive use of a water closet is 17,100; a fixed bath 44,700 and both a stove and sink 6,500. Although these figures are surprisingly high there are a number of cities where the lack of amenities is even more serious.

The number of persons per household in Bradford, 2.94, is the lowest of the seven cities under review. The number of persons per room is 0.77 and the percentage of persons living more than two per room is 4.03; a high figure compared with the average for England and Wales

of 2.16 per cent. This indicates under-occupation of some larger houses, and this is confirmed by another table not shown here which reveals that 3,200 households of one person are accommodated in dwellings with five to seven rooms, and that 8,900 households comprising two persons are living in dwellings of a similar size. There are 3,700 households accommodated in one room, and of these 1,900 comprise one person only, 1,300 two persons and 500 three persons.

TABLE 5 *Social Class distribution of Males (occupied and retired).
Bradford and England and Wales*

				Bradford		England and Wales	
				Number	%	Number	%
Total Males (occupied and retired) aged 15 and over ..				98,8	—	15,467,7	—
Social Class	I	..	..	2,8	2.9	516,4	3.3
	II	..	..	16,8	17.0	2,312,8	15.0
	III	..	..	52,4	53.0	8,150,3	52.7
	IV	..	..	16,3	16.5	2,509,5	16.2
	V	..	..	10,5	10.6	1,978,7	12.8

- Class I. Higher administrative, professional and managerial staff (including large employers).
- Class II. Intermediate administrative, professional and managerial staff (including teachers and salaried staff, shopkeepers and small employers).
- Class III. Foremen, skilled workers, clerical workers and shop assistants.
- Class IV. Semi-skilled workers.
- Class V. Unskilled workers.

The figures show that Bradford has a high proportion (19.9 per cent) of its male population within social classes I and II comprising administrative, professional and managerial personnel, teachers, shopkeepers and salaried staff. This compares with 18.3 per cent for England and Wales and 9.0 per cent for Stoke-on-Trent. The proportion of skilled workers in Bradford is slightly in excess of the average for England and Wales at 53.0 per cent.

Mr. C. W. Llanwarne, the Manager of the Bradford Employment Exchange, has kindly supplied me with the following table which gives the number of persons employed in various occupations in the City.

TABLE 6 *Bradford Employment Exchange*

Number of Persons in Employment in June, 1951 according to National Insurance Cards exchanged

Industry	Juveniles under 18 (included in Cols. 4 to 6)		Males aged 15 & over	Females aged 15 & over	Total M. & F. 15 & over
(1)	(2)	(3)	(4)	(5)	(6)
Textiles	1,372	2,688	26,948	28,786	55,734
Distribution	624	984	10,783	8,073	18,856
Engineering, Shipbuilding, etc... .. .	464	144	9,250	1,981	11,237
Transport, etc.	184	104	5,937	741	6,678
Public Administration	88	140	3,467	1,767	5,234
Building and Construction	600	20	6,411	225	6,636
Clothing	44	452	777	3,173	3,950
Paper and Printing	160	288	2,105	1,904	4,009
Vehicles	264	56	6,483	1,047	7,530
Food, Drink and Tobacco	104	96	2,573	1,223	3,796
Professional Services	168	248	4,223	4,948	9,171
Wood and Cork	200	36	1,859	383	2,242
Gas, Electricity, Water	84	20	3,089	198	3,287
Metal Goods	60	24	1,384	234	1,618
Metal Manufacture	16	20	1,358	109	1,467
Precision Instruments, etc... .. .	12	—	30	10	40
Chemicals	12	24	841	351	1,192
Insurance, Banking and Finance	24	96	993	694	1,687
Mining and Quarrying	24	4	417	43	460
Other Manufacturing In- dustries	12	12	186	106	292
Leather	—	8	67	33	100
Agriculture	52	4	319	39	358
Entertainment, Sport and Miscellaneous	96	288	2,711	6,870	9,581
Ex-Service Men	—	—	4	—	4
Totals	4,664	5,756	92,215	62,938	155,153

The following table, giving an analysis of domestic and other premises in the City as at the 31st March, 1951, is published by the courtesy of the City Treasurer.

TABLE 7 *Analysis of Domestic and other premises in the City*

Class	Number of Hereditaments	
	Number	Percentage of total %
A. DOMESTIC		
1—Houses and Flats (including Garages):		
(a) R.V. not exceeding £10	45,927	41·552
(b) R.V. exceeding £10 but not exceeding £13 ..	21,933	19·843
(c) " " £13 " " " £20 ..	16,870	15·263
(d) " " £20 " " " £30 ..	4,792	4·335
(e) " " £30 " " " £40 ..	921	0·833
(f) " " £40 " " " £50 ..	417	0·377
(g) " " £50 " " " £75 ..	314	0·284
(h) " " £75 " " " £100 ..	61	0·055
(i) " " £100	33	0·031
	91,268	82·573
B. COMMERCIAL		
2—House-shops (other than "off-licensed" premises shown in B. 4)	2,763	2·500
3—Shop premises	2,762	2·499
4—Premises with "off-licenses"	291	0·263
5—(a) Hotels and Boarding Houses (unlicensed) ..	23	0·021
(b) Restaurants and Cafes (unlicensed)	70	0·063
6—Offices and Banks	1,762	1·594
7—Warehouses and Stores	2,010	1·818
8—Workshops (non-industrial)	493	0·446
9—Garages (Commercial), Petrol Filling Stations and Car Parks	311	0·282
10—Lock-up Garages (not assessed with houses) ..	3,544	3·206
11—Advertising Stations and Signs	796	0·720
12—Markets	6	0·005
	14,831	13·417

Class	Number of Hereditaments	
	Number	Percentage of total %
C. LICENSED PREMISES (other than premises with "off-licenses" only, which are included in B. 4 above).		
13—Licensed Houses and Clubs (see Item D. 19 for unlicensed clubs)	496	0·449
14—Hotels and Restaurants (see Item B. 5 for unlicensed hotels and restaurants)	39	0·035
	535	0·484
D. ENTERTAINMENT AND RECREATIONAL		
15—Cinemas	38	0·034
16—Theatres and Music Halls	4	0·003
17—Sports and Recreation Grounds, Golf and Race-courses	134	0·121
18—Swimming Pools separately assessed (see J. 26 for Baths)	—	—
19—Social Clubs, Public Halls and Community Halls (unlicensed)	114	0·102
20—Other places of Entertainment (including Billiards Saloons, Dance Halls, Pleasure Piers, etc.) ..	38	0·037
	328	0·297
E. PUBLIC UTILITY		
21—(a) Electricity	—	—
(b) Ferries	—	—
(c) Gas	22	0·019
(d) Passenger Transport	24	0·022
(e) Water	24	0·022
	70	0·063
F. EDUCATIONAL AND CULTURAL		
22—Libraries, Museums, Art Galleries, etc.	26	0·024
23—Schools and Colleges, etc.:		
(a) Schools and County Colleges	113	0·102
(b) Teachers' Training Colleges	—	—
(c) Universities	—	—
	139	0·126

Class						Number of Hereditaments Number	Percentage of total %
G. INDUSTRIAL							
24—(a)	Mines and Quarries	..	..	..	..	18	0·016
(b)	Chemicals	..	..	..	..	41	0·037
(c)	Iron and Steel	..	..	..	..	38	0·034
(d)	Non-ferrous metals	..	..	..	..	22	0·020
(e)	Engineering and Shipbuilding	..	..	..	..	219	0·198
(f)	Vehicles	..	..	..	..	3	0·003
(g)	Textiles and Leather	..	..	..	..	1,024	0·927
(h)	Clothing	..	..	..	..	69	0·062
(i)	Food, Drink and Tobacco	..	..	..	..	89	0·081
(j)	Manufacture of Wood	..	..	..	..	61	0·055
(k)	Paper and Printing	..	..	..	..	120	0·109
(l)	Other Manufacturing Industries	..	..	..	..	345	0·312
(m)	Building and Contracting	..	..	..	..	45	0·041
						2,094	1·895
J. MISCELLANEOUS							
26—	Public Wash-houses and Baths	..	..	..	..	13	0·012
27—	Cemeteries and Crematoria	..	..	..	..	5	0·005
28—	Sewers and Sewage Works	..	..	..	..	12	0·011
29—	Town Halls and Municipal Offices	..	..	..	..	13	0·012
30—	Hospitals, Clinics, Nursing Homes, etc.	..	..	..	..	51	0·045
31—	Property occupied by the Crown	..	..	..	..	73	0·067
32—	Hereditaments not otherwise classified	..	..	..	..	1,098	0·993
						1,265	1·145
Total						110,530	100·000

Meteorology

Bradford is situated in a bowl-shaped depression on the east side of the Pennines, and has a climate typical of its position and altitude. The City extends to 25,000 acres, and varies in altitude from 1,200 ft. at Queensbury to 300 ft. at the City centre and 200 ft. at Esholt. The annual average of mean temperatures for the 30 year period ending 1935 was 47·5°F., compared with the 47·1°F. of Durham, 48·9°F. of Hull, 49·1°F. of Liverpool and 50·7°F. of London.

The average of the monthly mean temperatures for the year 1951 was 47·0°F. compared with 47·5°F., the average for the 30 years ending 1935, and with 47·7°F., the average of the monthly mean temperatures for 1950.

Rainfall amounted to 41·42 inches, compared with the average for the 40 year period ending 1948 of 34·04 inches, and with 34·31 inches for 1950.

The driest month was June (0·94 inches), and the wettest month was November (7·44 inches). There was a particularly heavy rainfall of 5·04 inches in August. Records of rainfall taken over many years show that August, the month in which the majority of Bradford people have perforce to take their annual holiday, has been the fourth wettest month of the year. The driest months on the average are April, May, June and September. The heaviest daily rainfall was recorded on 4th May, when 2·15 inches of rain fell. This was almost half of the total rainfall for that month.

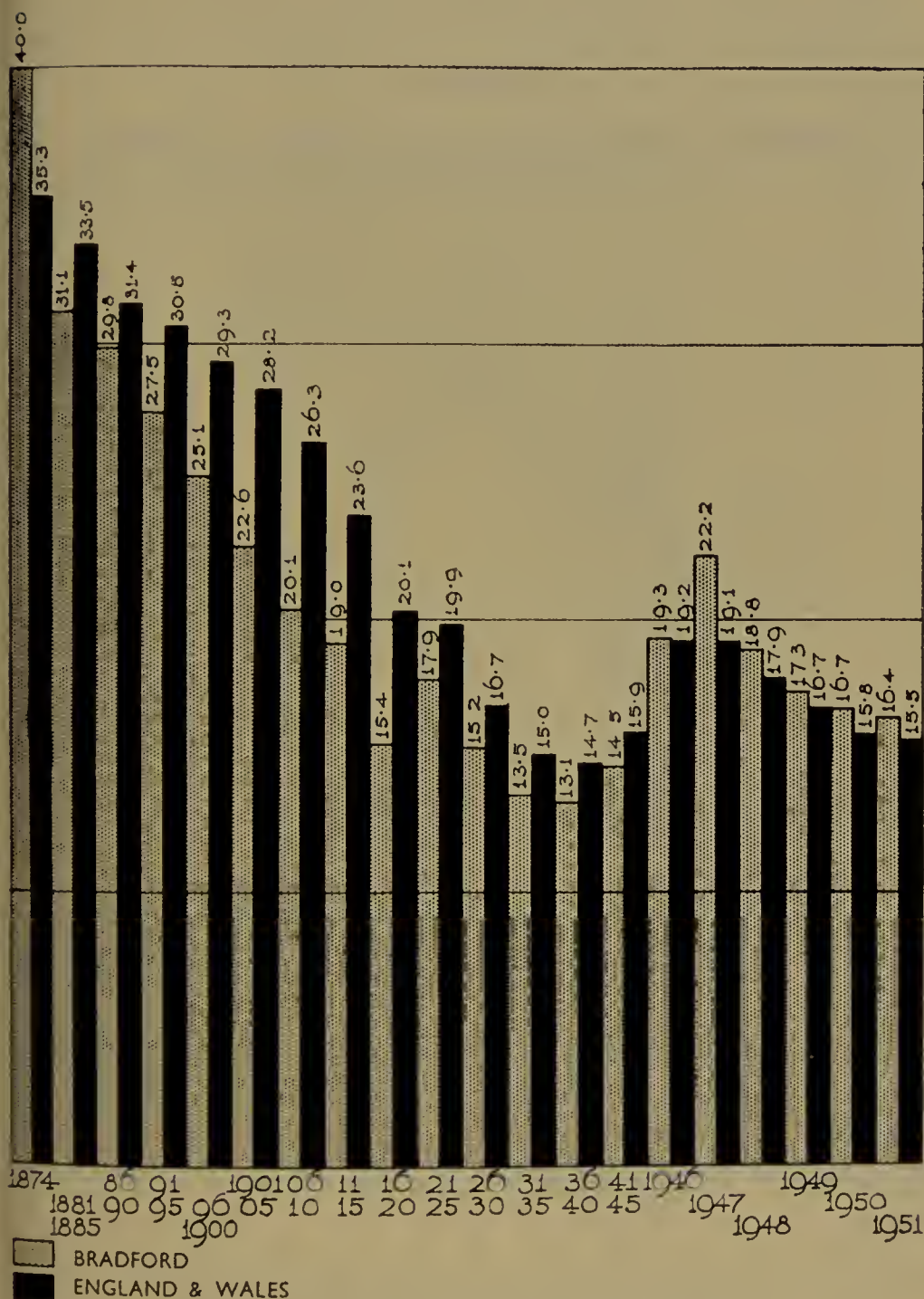
There were 1,271 hours of bright sunshine, compared with the annual average for the 30 years ending 1935 of 1,215 hours, and with 1,315 hours for 1950.

The sunniest month was June with 215·5 hours. December, the month with least sun, had only 27·8 hours. Maximum sunshine recorded on any day in the year was on the 5th June, when 15·1 hours were observed.

During the year snow fell on 15 days, and lay on the ground for a total period of 11 days. Heaviest falls were in March (4 days), and during that month snow lay on the ground for 2 days. During January snow fell on 3 days, and lay on the ground for a period of 7 days.

Fog was observed on 34 days during the year, and October, with 12 days, was the worst month.

THE BIRTH RATE OF BRADFORD AND ENGLAND AND WALES, 1874-1951



BIRTH RATE PER THOUSAND POPULATION

Fig. 3

Births

Births registered during the year numbered 4,769; 2,411 males and 2,358 females. The birth rate of 16·4 per thousand of the population shows a decrease of 0·3 per thousand from 1950.

In Bradford the birth rate reached an average of 31 in 1881-5. Its downward movement since that time is shown in Table 8 and Fig. 3.

TABLE 8

Year		Bradford		England and Wales
1881-85	..	..	31·1	33·5
1886-90	..	..	29·8	31·4
1891-95	..	..	27·5	30·5
1896-1900	..	..	25·1	29·3
1901-05	..	..	22·6	28·2
1906-10	..	..	20·1	26·3
1911-15	..	..	19·0	23·6
1916-20	..	..	15·4	20·1
1921-25	..	..	17·9	19·9
1926-30	..	..	15·2	16·7
1931-35	..	..	13·5	15·0
1936-40	..	..	13·1	14·7
1941-45	..	..	14·5	15·9
1946 ..	..	..	19·3	19·2
1947 ..	..	..	22·2	19·1
1948 ..	..	..	18·8	17·9
1949 ..	..	..	17·3	16·7
1950 ..	..	..	16·7	15·8
1951 ..	..	..	16·4	15·5

Of the 4,769 births registered, 282 or 5·9 per cent were illegitimate; a rate of 1·0 per cent less than in 1950. This rate has ranged from a minimum of 4·3 per cent in 1906 to a maximum of 10·8 per cent in 1945. Its movement during the last war and after is shown in Table 9 and Fig. 4.

TABLE 9 *Illegitimate Births per 100 Total Live Births*

Year		1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Bradford	..	6·3	5·7	6·0	7·0	8·4	10·8	7·8	7·0	7·3	5·6	6·9	5·9
England and Wales	..	4·3	5·4	5·6	6·4	7·3	9·3	6·7	5·3	5·4	5·0	4·9	4·7

THE ILLEGITIMATE BIRTH RATE OF BRADFORD AND ENGLAND AND WALES, 1940-1951

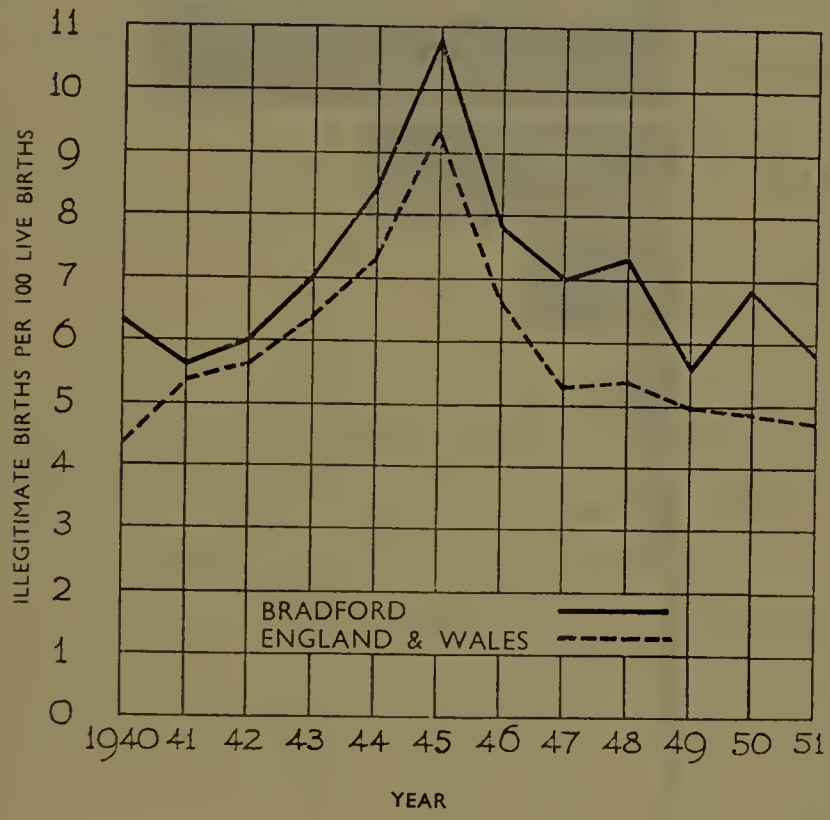


Fig. 4

DEATHS BY SEPARATE AGE GROUPS—BRADFORD, 1951
(TOTAL DEATHS 4456)

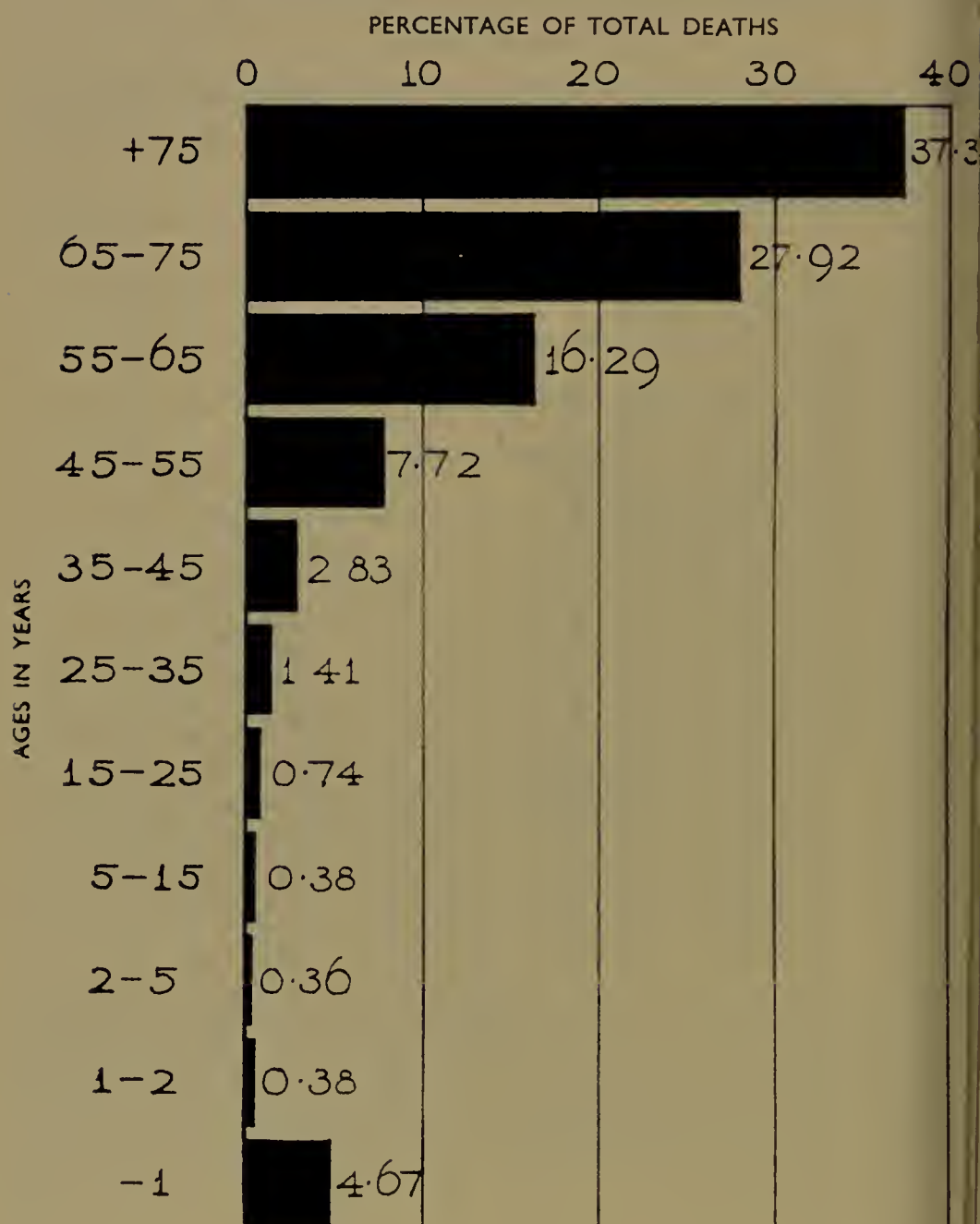


Fig. 5

Deaths

There were 4,456 deaths during the year, giving a crude mortality rate of 15·4 per 1,000 population. Adjustment of this figure by the area comparability factor, which makes allowance for the differing age and sex distribution of the population in different areas, gives a rate of 14·9 per 1,000 of the population. This compares with death rates of Croydon 11·1; Southampton 12·25; Bristol 12·32; Portsmouth 12·34; Leicester 12·5; Birmingham 12·80; Plymouth 12·88; Nottingham 12·94; Coventry 13·1; Kingston-upon-Hull 13·7; Cardiff 13·85; Sheffield 13·92; Sunderland 14·12; Leeds 14·5; Stoke-upon-Trent 14·56; Newcastle-upon-Tyne 14·58; Manchester 15·34; Salford 15·96; Liverpool 16·52. The death rate for England and Wales was 12·5.

Table 10 and Fig. 5 show the distribution of deaths by separate age groups.

Fig. 6 shows the crude death rates for Bradford and for England and Wales from 1886 to 1951.

TABLE 10 *Deaths by Separate Age Groups 1946-51*

Age			1946	1947	1948	1949	1950	1951
Under 1 year..	..	..	265	380	235	191	185	208
1-2 years	..	..	17	13	13	14	20	17
2-5 "	..	..	13	20	25	26	26	16
5-15 "	..	..	30	27	22	24	25	17
15-25 "	..	..	46	57	57	40	42	33
25-35 "	..	..	86	73	77	76	74	63
35-45 "	..	..	148	153	132	119	131	126
45-55 "	..	..	316	339	318	334	334	344
55-65 "	..	..	712	665	659	658	697	726
65-75 "	..	..	1,177	1,146	1,135	1,272	1,181	1,244
Over 75 years	..	..	1,230	1,326	1,198	1,469	1,458	1,662

Comparative Mortality from Various Diseases

Table 11 and Fig. 7 show the relative frequency of deaths due to certain diseases in Bradford in 1951. Heart disease was responsible for 35·03 per cent of the total deaths, followed by cancer, 14·86; cerebral haemorrhage, 12·87; bronchitis, 7·65; pneumonia, 4·72; violence, 3·74; and tuberculosis, 2·37.

THE CRUDE DEATH RATE OF BRADFORD AND ENGLAND AND WALES, 1886-1951

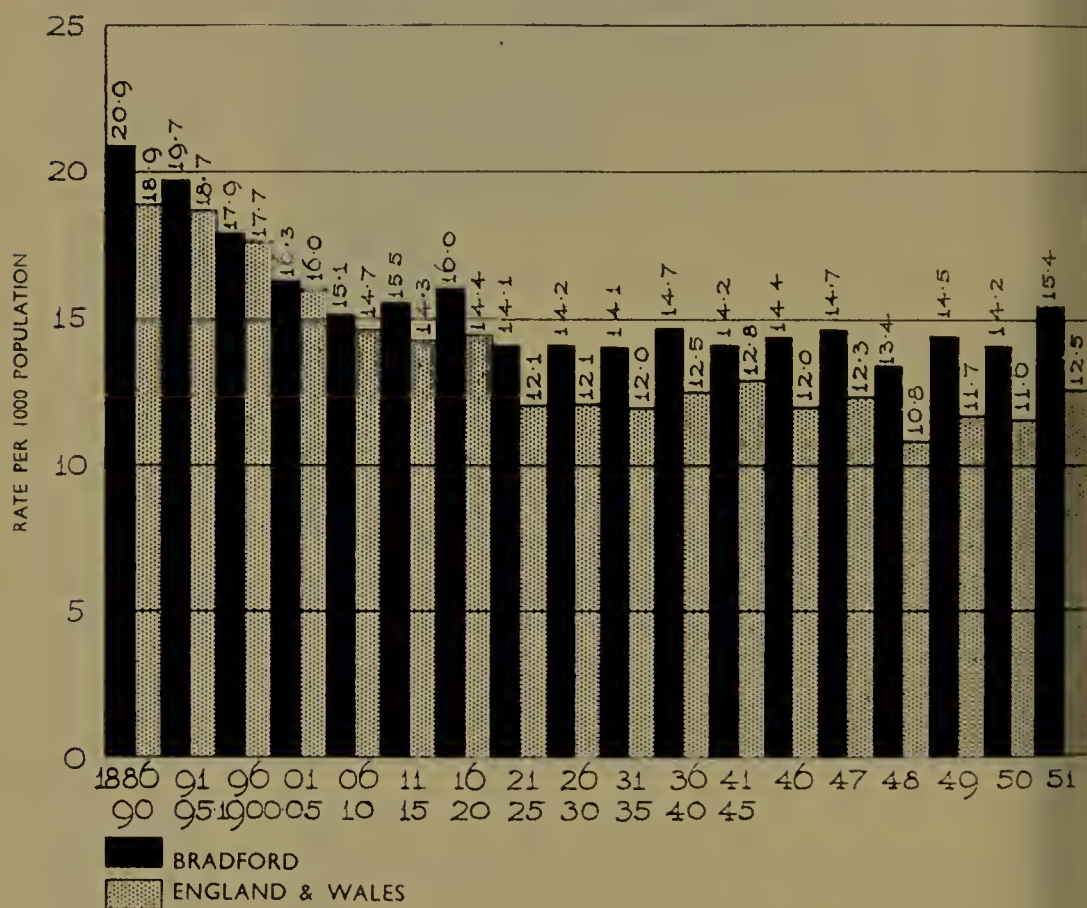


Fig. 6

A great diminution has taken place in the number of deaths due to the epidemic diseases such as the enteric fevers, diarrhoea and enteritis, scarlet fever, diphtheria, measles and smallpox. Whereas in 1889 13 per cent of all deaths were due to these causes, to-day they are responsible for less than 1 per cent. Similarly, sixty years ago, tuberculosis took its toll to the extent of 10 per cent of all deaths. In 1951, 2·37 per cent were due to this disease. Deaths due to bronchitis and pneumonia in 1951 are less than half the number recorded in 1889.

On the other hand, deaths due to degenerative diseases of old age are on the increase and now top the list—heart disease, cancer, cerebral haemorrhage and thrombosis accounted for 62·77 per cent of all deaths in 1951.

Heart Disease

The death rates for heart disease, as a whole, have been increasing steadily during the last twenty years. While much of this increase may be due to changes in certification and rules of classification, it cannot all be explained in this way. Deaths from coronary disease and angina pectoris are four times greater than they were in 1889. Deaths from these causes increased from 528 in 1950 to 542 in 1951.

TABLE 11 *Relative Frequency of Causes of Death—Bradford, 1951*

Causes of Death						Number	Percentage of Total
Heart disease	..	..	..	..	..	1,551	35·03
Cancer	..	..	..	..	..	658	14·86
Intra-cranial vascular lesions	..	..	..	..	..	570	12·87
Bronchitis..	..	..	..	..	..	339	7·65
Pneumonia	..	..	..	..	..	209	4·72
Violence	..	..	..	..	..	166	3·74
Tuberculosis	..	..	..	..	..	105	2·37
Congenital causes	..	..	..	..	..	118	2·66
Nephritis	..	..	..	..	..	48	1·08
Principal Zymotic diseases	..	..	..	..	..	28	0·63

(See Fig. 7—Relative Frequency of Causes of Death).

RELATIVE FREQUENCY OF CAUSE OF DEATH—BRADFORD, 1951

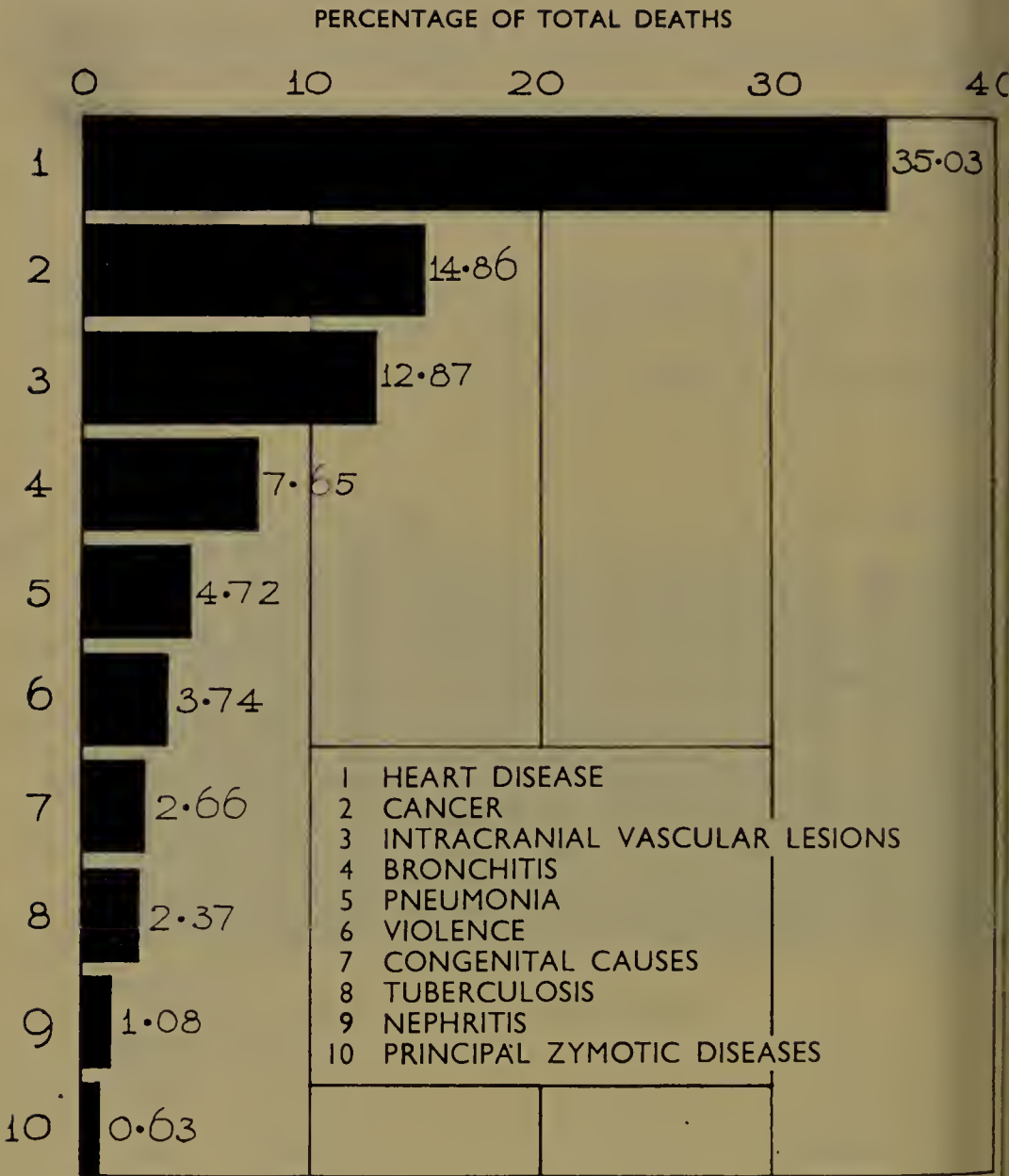


Fig. 7

Cancer and Malignant Tumours

There were 658 deaths; a crude death rate of 2,270 per 1,000,000, which is little at variance with the rates for the past eight years.

TABLE 12 *Deaths from Cancer—Bradford*

<i>Crude Death Rates—Bradford, England and Wales, 1941–1951</i>												
	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	
<i>Bradford</i>												
Deaths	564	594	612	608	562	646	609	647	580	663	658	
Crude Death Rate												
per 1,000,000 ..	2,090	2,240	2,310	2,130	2,130	2,310	2,130	2,242	1,950	2,252	2,270	
<i>England and Wales</i>												
Crude Death Rate												
per 1,000,000 ..	1,837	1,891	1,957	1,953	1,990	1,911	1,907	2,011	1,919	1,945	1,965	

Deaths from cancer of the lung and bronchus continue to increase. Deaths in Bradford from this cause were 18 in 1932, 36 in 1936, 42 in 1940, 82 in 1949, 94 in 1950 and 106 in 1951. Comparing the rates in 1947 (England and Wales) with the mean annual rate in 1921–30, men between 45–70 show a tenfold increase, whilst a three to five-fold increase has occurred amongst women of various ages.

Of the 106 deaths in 1951—88 were male and 18 female.

Intra-cranial Vascular Lesions

This heading includes deaths from cerebral haemorrhage (apoplexy), cerebral embolism and thrombosis. There were in all 570 deaths (229 males and 341 females).

TABLE 13 *Deaths from Cerebral Haemorrhage, etc., 1941–1951—Bradford*

	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Males ..	201	190	177	201	190	188	179	196	240	236	229
Females	287	244	215	279	292	267	271	221	287	334	341
Persons	488	434	392	479	482	455	450	417	527	570	570

There has been no significant alteration in the death rates from intra-cranial vascular disease.

Pneumonia and Bronchitis

TABLE 14 *Deaths from Bronchitis and Pneumonia, 1941-1951—
Bradford*

<i>Bronchitis</i>											
	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Males	174	168	168	142	153	153	199	142	167	177	209
Females	149	96	130	90	112	84	115	99	96	90	130
Persons	323	264	298	232	265	237	314	241	263	267	339
<i>Pneumonia</i>											
Males ..	95	104	112	114	102	97	109	93	100	70	112
Females	57	71	93	67	73	75	74	80	104	76	97
Persons	152	175	205	181	175	172	183	173	204	146	209

Comment has already been made on the notable increase in deaths from these diseases due to the influenza epidemic of the early months of the year.

Violence

Deaths from violence numbered 166; suicide accounting for 35, road accidents 28 and other accidents 103.

Tuberculosis

There were 86 deaths from respiratory tuberculosis, giving a crude death rate of 0.30, and 19 deaths from other forms of tuberculosis giving a crude death rate of 0.06.

The crude death rate from all forms of tuberculosis was 0.36.

TABLE 15 *Deaths from Tuberculosis, Mortality Rates per 1,000,000 of
All Forms: Bradford the Population: Bradford, Eng-
land and Wales*

Year ..	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Deaths, Bradford ..	178	178	151	167	142	149	150	148	141	141	109	109
Bradford Rate ..	655	661	570	642	542	525	538	512	489	484	370	369
England and Wales Rate	699	730	657	658	628	615	551	552	507	458	364	319

TABLE 16 <i>Deaths from Pulmonary Tuberculosis: Bradford</i>							<i>Mortality Rates per 1,000,000: Bradford England and Wales</i>						
Year	..	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Deaths, Bradford..		149	147	116	130	115	105	130	121	121	119	92	86
Bradford Rate ..		548	546	438	499	439	377	466	420	419	408	312	297
England and Wales Rate		588	602	542	557	524	515	468	473	440	403	321	275

During the past thirty years there has been a great reduction in the death rate from all forms of tuberculosis. The death rate has, in fact, been halved in the twenty-eight years since 1923.

Notifications of respiratory tuberculosis during 1951 numbered 230; a notification rate of 79.3 per 100,000 population, and a reduction of over 6 per cent on the previous year when there were 249 notifications with a notification rate of 84.6 per 100,000 population.

The rates of death from respiratory tuberculosis to notifications was 35 per cent. The age incidence of the notifications is given in Table 4 of the Appendix. The most notable features of the table are the much lower attack rate for females (87 cases) as compared with 143 males, and the preponderance of female cases (67 per cent) in the 15-44 age group.

Still-Births and Infantile Mortality

Still-births

There were 117 still-births; a rate of 23.9 per 1,000 total births compared with 22.3 last year and 22.9 for England and Wales. The legitimate still-birth rate was 53 per 1,000 total live births. As might be expected, illegitimate children are more frequently still-born than the legitimate. There has been a steady decrease in the still-birth rate per 1,000 total births (legitimate and illegitimate). The same decrease was not in evidence in respect of the illegitimate still-birth rate.

INFANTILE MORTALITY RATES—BRADFORD AND ENGLAND AND WALES

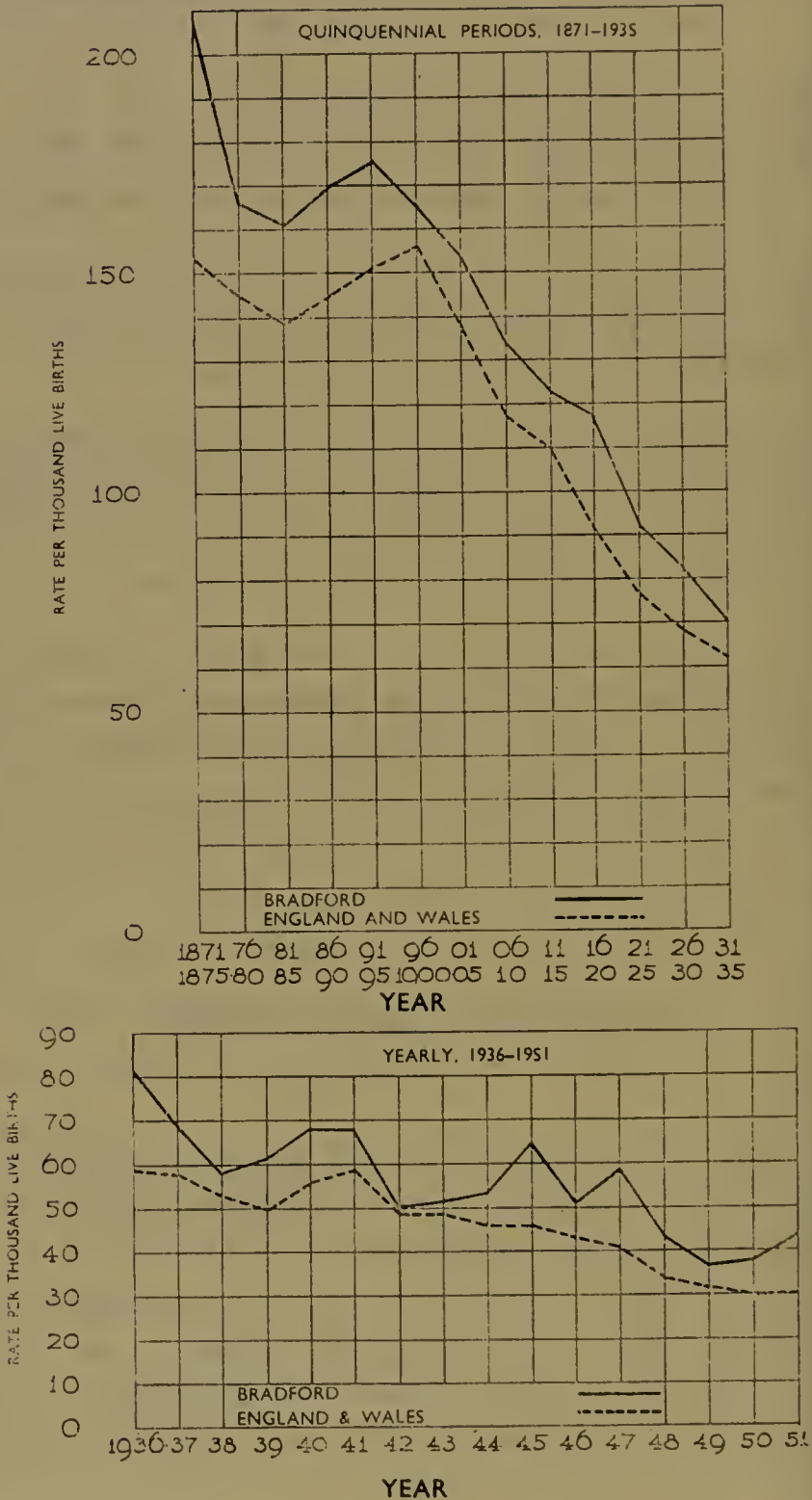


Fig. 8

Infantile Mortality

In Bradford, in 1951, there were 208 deaths of children under one year of age. This corresponds to an infantile mortality rate of 43·6. It is almost five times less than that for the year 1875 (202). It is higher, however, than that for England and Wales (29·6) and the average for 126 county boroughs and great towns (including London) of 34, and 6 points higher than the record Bradford rate of 38 in 1949 and 1950.

TABLE 17 *Infantile Mortality Rate: Bradford, England and Wales*

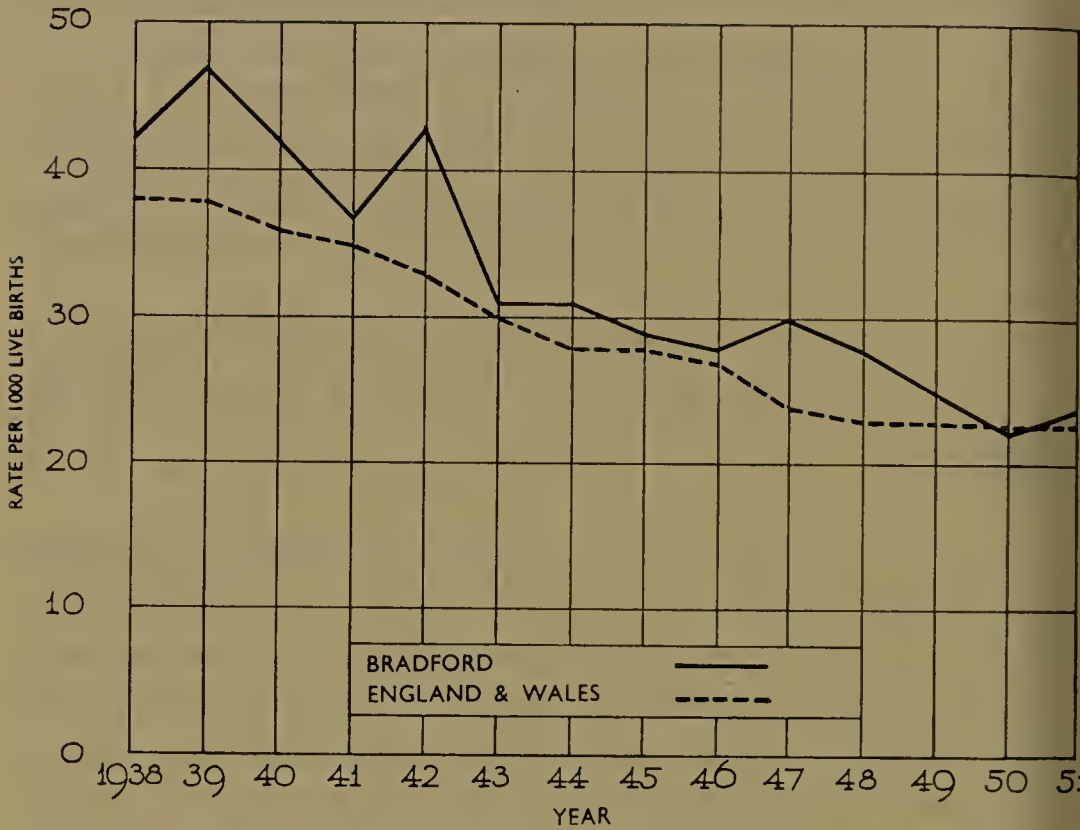
Year	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Bradford ..	69	70	52	51	54	65	51	60	43	37	38	43
England and Wales ..	57	60	51	49	45	46	43	41	34	32	30	30

Fig. 8 shows how the rates for both Bradford and England and Wales have diminished during the war years and after. The Bradford rate, which has for many years been, on the average, 6 to 9 per thousand higher than the rate for England and Wales, has not shown the same steady decrease evidenced by the England and Wales figure. There were sharp rises from 53 in 1944 to 65 in 1945; from 49 in 1946 to 60 in 1947 and again from 38 in 1950 to 44 in 1951. An increased incidence of diarrhoea and enteritis was responsible in 1945 and 1947, and the influenza epidemic in 1951.

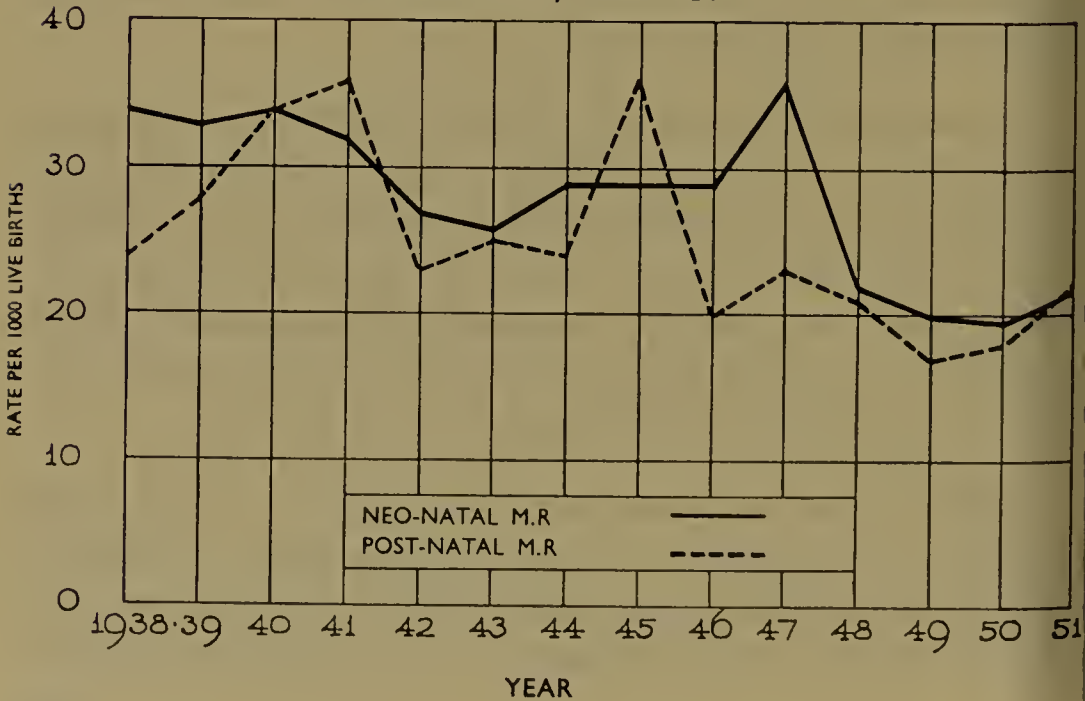
Infantile mortality rates for the 20 large towns of England and Wales are as follows:—Croydon, 19·00; Bristol, 20·37; Southampton, 24·89; Leicester, 25·20; Portsmouth, 29·64; Birmingham, 29·69; Sheffield, 30·55; Leeds, 31·00; Cardiff, 32·00; Nottingham, 32·60; Stoke-on-Trent, 33·00; Plymouth, 33·41; Newcastle-upon-Tyne, 34·56; Salford, 34·62; Liverpool, 35·10; Manchester, 35·29; Coventry, 35·60; Sunderland, 38·10; Bradford, 43·60; Kingston-upon-Hull, 46·00.

Bradford takes nineteenth place in the above list of 20 county boroughs. If the infant deaths are further analysed according to whether they occurred before or after the end of the fourth week, then the rate of deaths occurring during the first four weeks after birth (the

STILL BIRTH RATES—BRADFORD AND ENGLAND AND WALES, 1938-1951



NEO-NATAL AND POST-NATAL MORTALITY RATES— BRADFORD, 1938-1951



neo-natal mortality rate) was 21·6, which gives Bradford sixteenth place among the 20 county boroughs, the neo-natal mortality rates of which varied from 13·00 to 26·80. A comparison of still-birth rates for the same towns placed Bradford in the twelfth position, with a still-birth rate of 23·9, in a range varying from 18·68 to 31·03. Still-births and neo-natal deaths have much in common; both depending largely on factors that operate before and during birth. Combining still-birth rates and neo-natal death rates of the 20 towns, Bradford takes fourteenth place in a range varying from 34·1 to 53·35.

Finally, comparison of the post-natal rates reveals, as could be surmised after perusal of the above, Bradford in the low position of nineteenth equal in the scale with a post-natal mortality rate of 22·0 in a range varying from 6·00 to 22·0.

Fig. 9 illustrates still-birth rates, neo-natal and post-natal mortality rates for Bradford and England and Wales from 1938 to 1951.

These figures once again indicate a reasonably satisfactory still-birth rate, but an unduly high number of deaths of children under one year of age.

The increase of 6 deaths per 1,000 is attributable entirely to an increase of deaths (76) from respiratory infections. Of these, no less than 53 per cent (40) occurred during the months of January, February, March and April when influenza was epidemic. The proportion of the infantile mortality rate due to respiratory infections was 80 per cent higher than in 1950. Infant deaths attributable to other causes showed a slight increase, with the exception of those due to birth injuries which numbered 22 as against 5 in 1950. If, in fact, the respiratory infection contribution to the death rate had been the same as in 1950, the reasonably satisfactory record figure of 37 in 1950 would have been repeated or slightly bettered. Even so, 37 deaths per 1,000 live births, record figure for Bradford though it may be, is too high when one considers that many of the deaths could have been prevented. In 1951, 42 per cent of the infant deaths were due to infection of the gastro-intestinal

INFANTILE MORTALITY RATE FOR SPECIFIC CAUSES OF DEATH— BRADFORD, 1950-1951

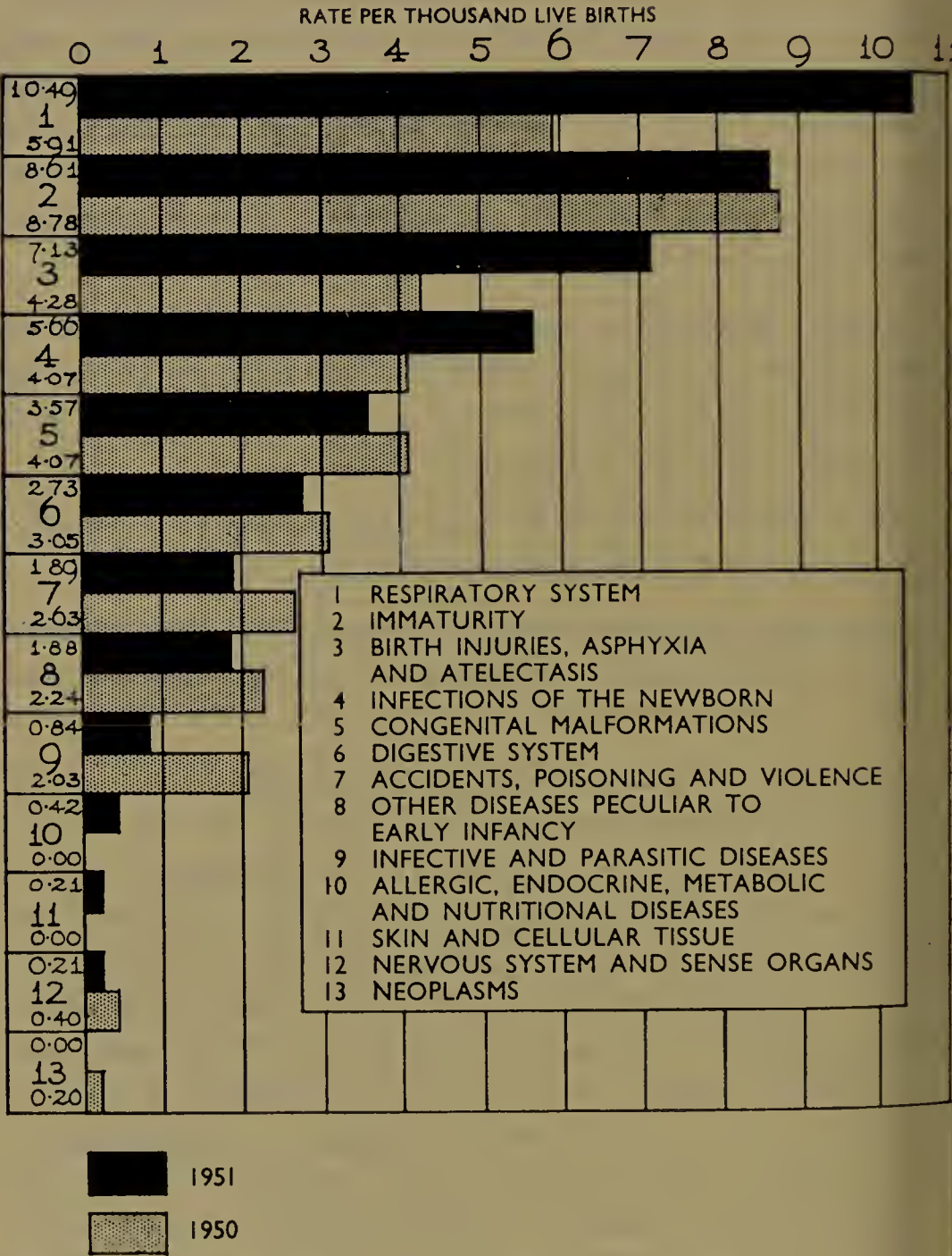


Fig. 10

tract (18) or of the respiratory system (70), and in the record year of 1950 no less than 32 per cent of the deaths were due to similar infections—gastro-intestinal tract (19) and respiratory tract (40). In 1951, of the 88 deaths due to infection, 53 occurred during the post-natal period.

Until the problem of the production of an artificial immunity against the common cold and pneumococcal infections has been solved, all that can be done is to concentrate on the education of the general public, and particularly parents of young children, in simple rules that must be observed in controlling the spread of infection. In this work the health visitor has the most important part to play, but with her increased duties under the National Health Service Acts and because of the shortage of numbers of these most important social workers, it is not physically possible for the existing staff to visit young infants and their mothers as much as is obviously necessary.

Much as one deplores the thought of a discontinuance of regular health visiting to every child under one year of age, it would seem that by force of circumstances a scheme of selective health visiting must be evolved to deal with cases where the need is greatest. The possibilities in this direction are being examined.

TABLE 18 <i>Infantile Mortality Rates</i>					<i>Illegitimate and Legitimate</i>					
<i>per 1,000 Live Births</i>					<i>Infants</i>					
Year	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Illegitimate ..	69	76	67	80	70	63	43	44	35	39
Legitimate ..	50	47	52	63	47	59	43	37	38	43

Fig. 10 compares the relative incidence of infant deaths due to certain causes for the years 1950 and 1951.

It will be noted that in 1951 the infantile mortality rate amongst illegitimately born infants was less than that amongst the legitimately born.

Infantile Mortality, 1951

Net Deaths from Stated Causes at Various Ages under 1 Year of Age

International List Nos.	Disease	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 1 month	1—3 months	3—6 months	6—9 months	9—12 months	Total deaths under 1 year
001—138	Infective and parasitic diseases	..	—	—	—	—	2	—	—	2	4
140—239	Neoplasms	..	—	—	—	—	—	—	—	—	—
240—299	Allergic, endocrine, metabolic and nutritional diseases	..	—	—	—	—	1	—	1	—	2
330—398	Nervous system and sense organ diseases	..	—	—	—	—	—	—	—	—	1
470—527	Respiratory system	..	1	—	—	1	6	26	10	7	50
530—587	Digestive system	..	—	—	—	—	3	6	2	2	13
690—716	Skin and cellular tissue	..	—	—	—	—	—	—	1	—	1
750—759	Congenital malformations	..	6	1	2	11	4	—	1	1	17
760-0; 760-5; 761-0; 762-0; 762-5	Birth injuries, asphyxia and atelectasis	..	29	2	1	—	1	1	—	—	34
763-0; 763-5; 764-0; 764-5; 769-5	Infections of the newborn	..	1	3	3	5	15	—	—	—	27
770—795	Other diseases peculiar to early infancy	..	3	—	—	—	4	1	1	—	9
774—776	Immaturity	..	39	1	1	—	—	—	—	—	41
E800—E999	Accidents, poisoning and violence	..	—	1	1	—	1	2	3	1	9
	Total	..	79	9	8	7	103	37	36	19	208

TABLE 20 *Still-birth and Infantile Mortality Rates according to Social Status of Male Parent*

		Social Class					Unclassified	All Classes
		1	2	3	4	5		
Live Births	.. ..	100	601	3,113	521	411	23	4,769
Still-births..	.. ..	3	10	78	13	10	3	117
Still-birth Rate	.. ..	29.1	16.4	24.4	24.3	23.7	—	24.0
		18.2		24.4	24.1			
Deaths under 1 year	.. ..	—	17	128	33	27	3	208
Infantile Mortality Rate..	.. ..	—	28.2	41.1	63.3	65.7	—	43.6
		24.3		41.1	64.4			
Deaths under 1 month	.. ..	—	10	64	17	11	1	103
Neo-natal Mortality Rate	.. ..	—	16.6	20.6	32.6	26.8	—	21.6
		14.3		20.6	30.0			
Deaths 1 month—1 year	.. ..	—	7	64	16	16	2	105
Post-natal Mortality Rate	.. ..	—	11.6	20.6	30.7	38.9	—	22.0
		10.0		20.6	34.3			

It will be noted that the still-birth rate for classes 4 and 5 is about one third higher than for classes 1 and 2; the neo-natal rate is more than twice as high and the post-natal rate more than three times as high.

Maternal Mortality

Table 22 illustrates the gratifying diminution that has taken place in the number of deaths due to childbirth. During the ten year period prior to 1936, the rate varied between 7 and 4 deaths per 1,000 total births; thereafter the rate slowly declined until 1946 when there was a sharp drop to 1.46. It fell still lower in 1947 to 1.07 and in 1948 to 0.88. In 1949 the rate increased to 1.35 per 1,000 total births, and in 1950 it was 1.40. 1951 has seen another fall to 1.23 (see Fig. 11).

TABLE 22 *Maternal Mortality Rates in Previous Years*

Year	BRADFORD			ENGLAND AND WALES		
	Puerperal Sepsis	Other Puerperal Causes	Total Puerperal Mortality	Puerperal Sepsis	Other Puerperal Causes	Total Puerperal Mortality
1936 ..	1.47	3.17	4.64	1.34	2.31	3.65
1937 ..	0.95	1.67	2.62	0.97	2.26	3.23
1938 ..	0.49	3.66	4.15	0.89	2.19	3.08
1939 ..	1.32	1.85	3.17	0.74	2.82	3.56
1940 ..	1.05	1.83	2.85	0.52	1.64	2.16
1941 ..	1.63	1.36	2.99	0.48	1.75	2.23
1942 ..	1.20	1.20	2.40	0.42	1.59	2.01
1943 ..	0.70	2.08	2.78	0.73	1.56	2.29
1944 ..	0.83	1.67	2.50	0.59	1.34	2.93
1945 ..	0.70	2.57	3.27	0.49	1.30	1.79
1946 ..	0.35	1.11	1.46	0.18	1.24	1.42
1947 ..	0.31	0.78	1.07	0.26	0.91	1.17
1948 ..	0.00	0.88	0.88	0.24	0.78	1.02
1949 ..	0.19	1.15	1.35	0.22	0.76	0.98
1950 ..	0.40	1.00	1.40	0.12	0.74	0.86
1951 ..	0.41	0.82	1.23	0.10	0.69	0.79

These deaths are classified in the following table, according to the age period of the mother, and the condition from which the deaths arose.

TABLE 23 *Deaths in Childbirth. Age and Classified Cause*

Classified Cause	Age in Years						
	20	25	30	35	40	45	Total
Toxæmias ..	..	—	—	—	—	—	—
Septic conditions ..	..	—	1	—	1	—	2
Ectopic gestation ..	..	—	—	—	—	—	—
Hæmorrhage ..	..	—	—	—	—	—	—
Other causes ..	..	1	1	1	—	—	4
Total ..	..	1	2	1	1	—	6

MATERNAL MORTALITY RATE—BRADFORD AND ENGLAND AND WALES, 1926–1951

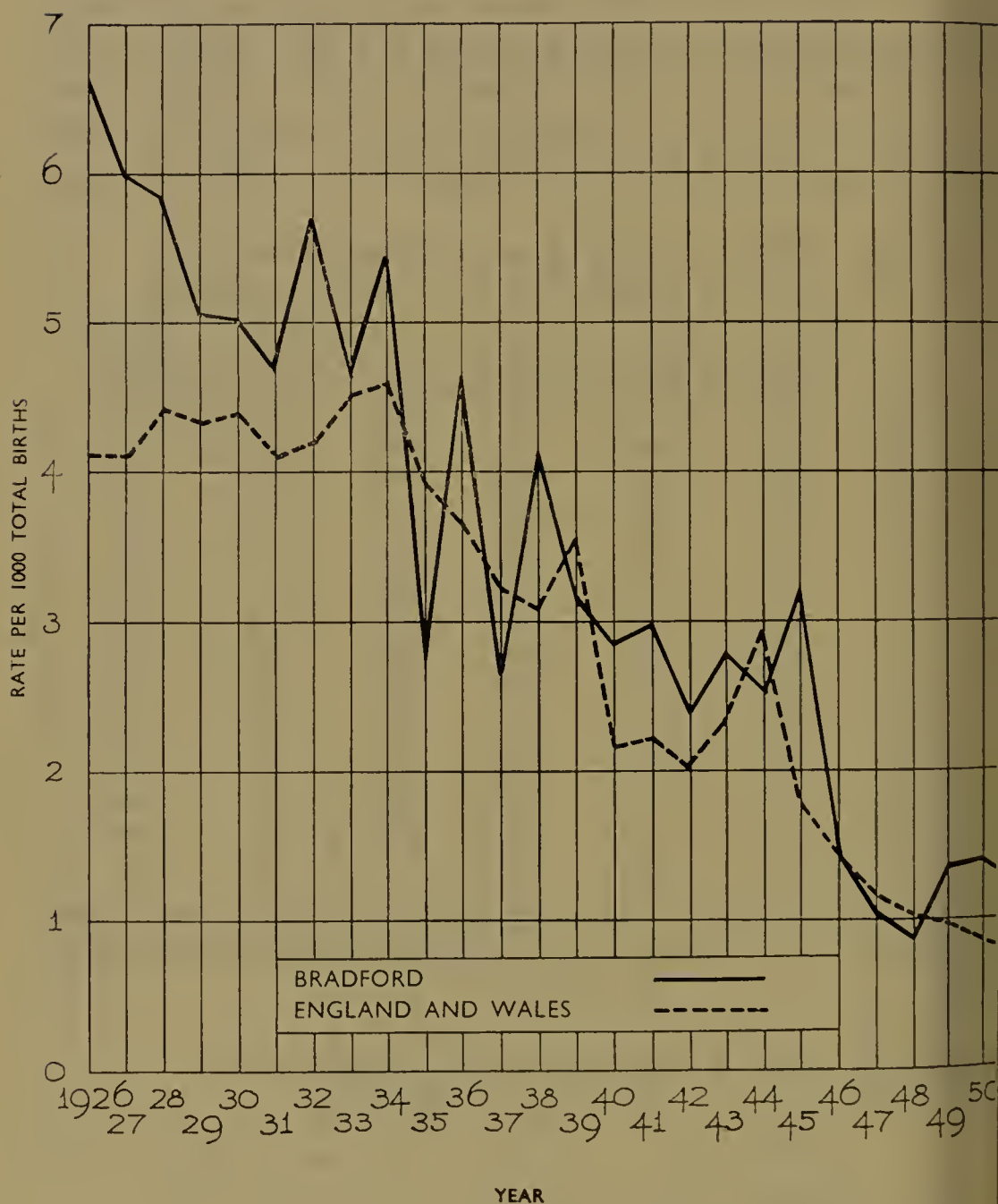


Fig. 11

Infectious and Other Diseases

CERTAIN NOTIFIABLE DISEASES

ACUTE ANTERIOR POLIOMYELITIS

SALMONELLA INFECTION

INFECTIVE ENTERITIS

FOOD POISONING

BACILLARY DYSENTERY

EPIDEMIC MYALGIA

INFECTIVE HEPATITIS

OUTBREAK OF PARATYPHOID FEVER

VACCINATION AND IMMUNISATION

TUBERCULOSIS—THE BRADFORD CHEST CLINIC

VENEREAL DISEASES

NEW CLAIMS FOR SICKNESS BENEFIT

TABLE 1

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Smallpox ..	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria..	247	321	380	846	930	891	872	631	353	246	317	361	588	717	441	144	37	15	19	—	1
Scarlet Fever	920	781	997	1,588	1,230	1,194	867	896	771	309	302	946	1,543	820	703	409	464	765	531	490	291
Enteric Fever	6	48	17	7	8	10	9	4	28	26	13	8	2	2	3	8	4	—	—	—	110
Cerebro-Spinal Meningitis	7	9	10	1	10	9	21	13	6	67	72	85	32	41	24	16	24	14	12	7	3
Measles ..	3,592	2,774	4,186	2,878	2,505	3,663	1,682	4,724	742	3,760	1,734	5,328	803	551	4,449	64	4,808	1,027	3,406	3,018	3,771
German Measles ..	66	94	125	337	1,736	189	93	131	181	254	115	224	622	1,412	98	228	423	1,181	190	125	94
Whooping Cough ..	568	1,855	697	958	1,400	1,301	1,184	1,713	193	491	1,958	1,348	781	495	682	942	631	1,404	347	1,623	1,273
Infective Enteritis	11	56	61	11	2	7	41	22	41	5	11	13	2	2	252	98	259	212	167	445	372
Erysipelas ..	141	130	171	177	147	176	144	168	159	147	138	121	123	115	90	95	104	104	101	119	103
Puerperal Pyrexia	58	42	44	28	40	41	56	57	67	82	43	30	24	25	22	25	40	47	23	24	13
Puerperal Fever ..	41	25	17	18	5	20	6	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Ophthalmia Neonatorum	27	15	18	23	13	23	28	21	12	15	19	13	20	13	15	36	29	25	16	20	12
Poliomylitis ..	1	1	2	—	5	1	—	—	1	2	—	2	—	4	—	3	86	8	29	52	12
Polio-Encephalitis	—	—	—	—	1	1	1	—	—	1	—	—	—	—	1	1	5	—	3	2	1
Encephalitis Lethargica ..	2	1	2	1	2	2	1	2	—	2	1	1	—	3	2	—	1	—	—	—	—
Chicken Pox ..	1,793	1,475	1,646	1,720	2,169	1,276	1,788	1,705	1,352	1,544	1,228	1,276	1,623	1,413	805	861	927	1,599	1,268	1,639	2,029
Pulmonary Tuberculosis..	376	312	305	273	232	274	253	194	237	161	167	195	182	150	165	170	168	207	276	249	230
Non-Pulmonary Tuberculosis	117	121	124	69	79	105	100	84	61	30	41	75	51	30	45	55	64	61	83	67	58
Anthrax ..	1	1	4	1	—	2	3	2	1	2	—	—	—	—	—	—	—	—	—	—	—
Pneumonia ..	670	631	636	337	361	499	514	428	342	382	490	506	430	195	251	241	289	338	445	399	494
Malaria ..	6	4	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery ..	9	25	12	26	57	24	35	33	72	129	102	213	86	76	101	61	16	138	—	574	322
Vincent's Angina ..	—	—	—	—	—	—	—	—	—	—	3	24	1	—	1	—	—	—	—	—	—
Pemphigus ..	—	—	—	—	—	—	—	—	1	18	6	3	—	8	—	—	—	—	—	—	2

Infectious and Other Diseases

The diseases "notifiable" in Bradford are: Smallpox, cholera, diphtheria, membranous croup, erysipelas, scarlet fever, typhus fever, typhoid fever, enteric fever, relapsing fever, plague, cerebral spinal fever, acute poliomyelitis, acute polio-encephalitis, acute encephalitis lethargica, ophthalmia neonatorum, puerperal pyrexia, malaria, infective enteritis, dysentery, acute primary pneumonia, acute influenzal pneumonia, measles, whooping cough, tuberculosis. In addition, food poisoning is notifiable under Section 17 of the Food and Drugs Act, 1938.

The notifications of infectious diseases are shown in Table 1.

During the year the only case of diphtheria that had occurred since February, 1949 died—a reminder that diphtheria is still a dangerous disease even although its incidence has been so markedly reduced. Scarlet fever notifications (291) were much less than in 1950 and the condition remained mild. This is the smallest number of cases of scarlet fever ever recorded in the Bradford statistics. Measles again was unduly prevalent as in the two previous years. There were 5 deaths. Poliomyelitis cases were comparatively few (13, with 2 deaths), and Sonne dysentery again proved troublesome.

Diphtheria

Cases 1. Deaths 1.

It is with regret that we have to record one death from faucial diphtheria. This occurred in a non-immunised child aged 4 years, attending nursery class, and was the only case which came to our notice during the year, although 2 carriers were discovered in the ensuing close

investigations which followed in an attempt to find the origin of the infection. Immediately the case was discovered, nose and throat swabs were taken of all the nursery class and the adjacent infants' class, and also the children from 0 to 5 years who lived in houses nearby the patient. In the afternoon, parents were seen and all their children who had not been immunised for at least a year were actively and passively immunised, i.e. 0.5 c.c.s P.T.A.P. was injected into one arm and 1,000 units of Diphtheria Anti-toxin into the other. Fifteen children, in all, were immunised, and the procedure was completed for the remainder of the children during the next morning, as letters had been sent to their homes asking for parental consent. In all cases this was given. Of the swabs, 2 were found positive and were discharged to hospital where the diagnosis of "diphtheria carrier" was made. The swabbing of these two classes was repeated again three days later and proved completely negative.

Scarlet Fever

Cases 291. Deaths 0.

TABLE 2 *Mortality Rate per 1,000 in Previous Years.*

	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Bradford	0.03	0.03	0.07	0.06	0.08	0.02	0.00	0.00	0.00	0.00	0.00
England and Wales	1.25	0.05	0.03	0.02	0.02	0.01	0.01	0.00	0.00	0.75	0.84

The number of cases of scarlet fever notified in 1951 was 199 less than in 1950. The disease continued to be mild and there were no deaths.

TABLE 3 *Cases of Scarlet Fever month by month.*

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases ..	21	33	29	28	25	17	15	12	30	21	25	35

Smallpox

Cases 0.

No smallpox occurred during 1951.

Measles

Cases 1,273. Deaths 5.

There were 753 more cases of measles in 1951 than in 1950, and there were 5 deaths as against 4 in the previous year.

Whooping Cough

Cases 1,273. Deaths 3.

There were 1,273 cases of whooping cough as against 1,623 in the previous year. The case mortality rate was appreciably less than in 1950. Two of the deaths occurred in the age group 1 to 5 and one in the age group 45 to 55.

TABLE 4 *Age Incidence of Notifications and Deaths*

	Under 1 Year	1 to 5	5 to 15	15 plus
Notifications	124	852	281	16
Deaths ..	—	2	—	1

Erysipelas

Cases 103. Deaths 0.

One hundred and three cases of erysipelas were notified during the year.

Ophthalmia Neonatorum

Cases 12. Deaths 0.

None of the 12 cases of ophthalmia neonatorum notified during the year resulted in any permanent visual disability.

Pemphigus Neonatorum

Cases 2. Deaths 0.

The two cases of pemphigus neonatorum notified during the year were of a mild character.

Paratyphoid Fever

Cases 110. Deaths 0.

An outbreak of paratyphoid fever, caused by *Salmonella paratyphi* Vi. phage type 1, occurred in September and October among pupils attending a large school. A detailed account of the epidemic is given later in this section.

Anthrax

Cases 1. Deaths 0.

One case came to our notice. This was in the form of malignant pustule which reacted satisfactorily to streptomycin treatment. Many samples of wool and dust were taken from parts of the factory and sent to the laboratory for examination for the presence of B. Anthracis spores. Examination of dust and wool particles taken from many different parts of the factory showed a high concentration of spores present.

Cerebro-Spinal Meningitis

Cases 3. Deaths 0.

The number of cases of cerebro-spinal meningitis remained low and fortunately all recovered.

Pneumonia

Cases 494. Deaths 209.

There were 95 more cases notified than in 1950, and 63 more deaths.

Influenza

Deaths 94.

In common with the rest of the country, Bradford was affected by an epidemic of influenza during the months of January, February and March due to the influenza virus Type A, and while the number of deaths from this disease was the highest experienced since 1943, it was not like the virulent infection of the post 1914-18 war years. It was, nevertheless, responsible for a great deal of sickness and the age groups with least resistance suffered most. The rise in the infantile mortality rate from 37 to 43 was due entirely to an increase in the number of deaths from respiratory infection. A corresponding rise in the death rate of those over 65 was due to the same cause.

TABLE 5 *Deaths from Influenza 1940—1951*

Year ..	..	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Deaths	..	62	64	29	115	29	38	41	20	6	76	23	94

Acute Anterior Poliomyelitis

Cases 13. Deaths 2.

During 1951 there were 13 cases of poliomyelitis as against 57 in 1950. Of these, 9 were paralytic and 4 were non-paralytic. There were 2 deaths and the following table shows the varying degrees of disability which remained after the attack. Each case was thoroughly investigated at the time of notification and a close watch was kept on the contacts.

TABLE 6 *End Result of Cases of Poliomyelitis*

Number		Severe	Moderate	Mild	No
		Disability	Disability	Disability	Disability
Surviving (1) Paralytic	7	1	1	2	3
(2) Non-paralytic	4				
Deaths	2				
Total		13			

Salmonella Infection

The majority of the cases came to light as a result of routine swabbing in searching for dysentery carriers. In 20 cases the organism involved was *Salmonella typhimurium*; *Salmonella newport* in 16 of the remaining cases, and the other *Salmonella thompson*. Although all were followed up closely, we were unable to discover how the infection had been acquired, but in no case was there any immediate association found with food.

Infective Enteritis

Cases 372. Deaths 33.

The term "infective enteritis" includes all manner of diarrhoea which came to the notice of the Department and to which we were unable to assign specific bacterial causes. All the notified cases were visited and specimens obtained in the same way as was done with dysentery notifications. It must be emphasized that all deaths from enteritis in children under two years of age came to our notice, whereas only a fraction of the total cases did so. Table 7 shows the age distribution

THE INCIDENCE OF POLIOMYELITIS BRADFORD, 1947, 1948, 1949, 1950 and 1951

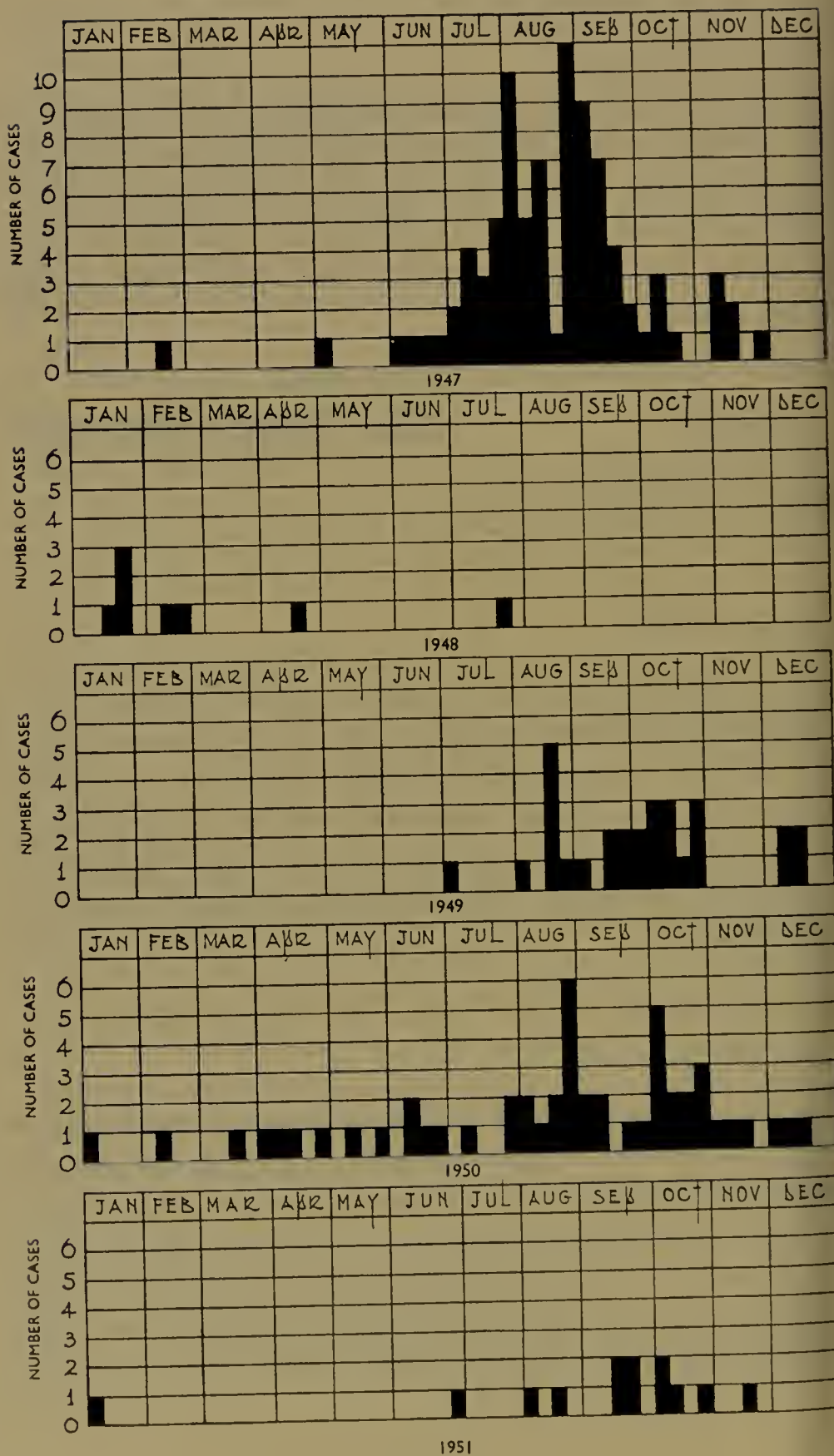


Fig. 12

of the enteritis, and it will be noted that more than half of the cases occurred in children under five years of age. Of the 33 deaths, 16 occurred in children under 1 year.

TABLE 7 *Notifications of Infective Enteritis in Age Periods*

Under 1	..	103
1—5	..	120
5—15	..	60
15—25	..	12
25—45	..	38
45—65	..	21
Over 65	..	18
Total		372

Food Poisoning

Cases 4. Deaths 0.

TABLE 8 *Summary of Details, 1951.*

Food Poisoning Notifications returned to Registrar General

1st Quarter	Nil
2nd Quarter	Nil
3rd Quarter	4
4th Quarter	Nil
Total	4

Outbreaks due to Identified Agents

Total outbreaks—Nil

Total Cases—Nil

Outbreaks due to:—

(a)	Chemical poisons	..	..	..	Nil
(b)	Salmonella organisms	..	..	..	Nil
(c)	Staphylococci (including toxin)	..	..	..	Nil
(d)	C.I. botulinum	..	..	..	Nil
(e)	Other bacteria	..	..	..	Nil

Outbreaks of Undiscovered Cause.

Total outbreaks—1

Total cases—3

Single Cases

There was a single case in the third quarter. Total—1.

It will be seen from the above summary of details that the City has been remarkably free from food poisoning outbreaks during the year.

Bacillary Dysentery

Sonne Dysentery—Cases 322. Deaths 0.

The epidemic of Sonne dysentery continued throughout the year and table 9 shows that the brunt of the infection was borne by children in the 1 to 5 age group. Sonne dysentery is highly infectious and it is in this age group where children are most likely to infect others. Among small children in a nursery, infection is spread by direct and indirect contact, and we have found floors and toys in day nurseries harbouring infecting organisms. The infection can also spread through food, but there has been no evidence that this has been a serious source of infection. In many cases the symptoms of Sonne dysentery are mild, but even in mild cases it is several weeks before the child recovers completely its previous good health. A proportion of children are much more severely affected. The monthly distribution of cases for the years 1950-1951 is shown in table 10. From this, it will be seen that Sonne dysentery is primarily a disease of winter and spring and tends to decline during the hot summer months.

TABLE 9 *Number and Age Distribution of Cases of Sonne Dysentery*

Age	Under 1	1 to 5	5 to 15	15 and over
Number	15	154	69	84

TABLE 10 *Notifications of Sonne Dysentery month by month, 1950-1951.*

Month	Year	
	1950	1951
January	.. 3	31
February	.. 57	56
March ..	.. 66	46
April ..	.. 58	100
May ..	.. 109	44
June ..	.. 48	9
July ..	.. 37	7
August ..	.. 14	3
September	.. 20	1
October ..	.. 14	—
November	.. 5	—
December	.. 32	4
	463	301

As in the previous year, arrangements were continued with general practitioners so that when a suspected case of dysentery was notified, specimens were collected by the sanitary inspectors for bacteriological examination to confirm the diagnosis. The general practitioners received the report direct from the laboratory and a copy was sent to the Medical Officer of Health. This arrangement has been very successful and has probably increased the number of cases coming to our notice. Nevertheless, the figures for the year do not include more than a fraction of the cases we believe actually occurred, since many persons do not seek medical advice unless the symptoms are severe. As was to be expected, the day nurseries and nursery schools proved to be important foci of infection.

Many different methods of controlling the spread of infection have been tried, with varying degrees of success. However, we have evolved what we think is a reasonably satisfactory technique for dealing with Sonne dysentery in day nurseries where the children are under the care of a medical member of this department, and where some of the staff have been trained in nursing. When a case of Sonne dysentery occurs in a nursery, rectal swabs are taken from all the children and the positives are excluded. The remaining children, after parental consent has been obtained, receive doses of sulphadiazine or sulphatriod. The dosage which has been adopted is as follows:-

Babies under 6 months old	..	0.75 grms. daily for 4 days.
Babies aged 6 months to 2 years..	1.25 grms. daily for 4 days.	
Children aged 2 to 5 years	..	3 grms. daily for 4 days.

After a further 2 days, rectal swabs are again taken from all the children, and providing these are all negative, the nursery is declared free from infection. It is most unusual for further treatment to be necessary, and in no case, so far, has parental permission been withheld.

The members of the staff are also examined for evidence of infection and are offered prophylactic treatment—usually 4.5 grms. daily for 4 days. Additional cleansing and disinfection of the nursery takes place

after the infection has been found. It is a general rule that any child found to be suffering from diarrhoea is swabbed and excluded from the nursery until a bacteriological report is obtained. Children who are found to be infected with *Shigella sonnei* are given the opportunity of attending their own doctor or the Maternity and Child Welfare Clinic for treatment. Children are allowed to return to the nursery after 2 consecutive negative rectal swabs have been obtained. Home contacts of all infected children are investigated and appropriate treatment instituted.

With this technique it has been found unusual, during any one outbreak of Sonne dysentery, for a nursery to be attacked more than once. There is also a striking improvement in the general hygiene of the nursery following an outbreak, for it has a very salutary effect on the staff. The mothers of children suffering from Sonne dysentery are given a pamphlet on the precautions to be taken in the household.

Epidemic Myalgia

Cases 35. Deaths 0.

In the early summer months, several cases of epidemic myalgia came to our notice. Further investigations revealed what appeared to be a small epidemic. Thirty-five cases were discovered, but we have little doubt that these were only a small proportion of those which actually occurred. As the number of cases discovered was small, we cannot draw any satisfactory conclusions from the distribution—from either the age distribution or the distribution throughout the City.

The incubation period was from 4 to 6 days and there were several examples of the spread of the disease from person to person within the family.

The age group most affected was from 1 to 5, but no conclusions may be drawn from this as the details of many were obtained by getting in touch with medical officers in charge of paediatric units of the City hospitals. Clinically, the disease followed the now familiar

lines, and many of the children were admitted to hospital with a diagnosis of acute appendicitis. Two cases showed definite meningism, but lumbar puncture was not performed as the children were nursed at home.

It would appear that epidemic myalgia is a disease of the summer months, and as the majority of cases are not admitted to hospital, the co-operation of general practitioners has been sought in order to study the epidemiology of future epidemics.

Infective Hepatitis

About the end of May we were informed that in a certain elementary school many of the children were absent because of illness causing violent abdominal pain and vomiting. Investigation revealed that 47 children had suffered from an illness characterised by epigastric pain, headache, nausea and anorexia. Eight of these developed jaundice. All the cases were from the infant and nursery department; the nearby primary school children being unaffected. In the cases where no jaundice occurred, the symptoms appeared to be of relatively short duration, varying from 1 to 4 or 5 days, although in one or two cases there was evidence of second attacks. In those which developed jaundice, there was a period varying from a few days to almost a month between the original onset of abdominal pain and vomiting, and the development of the jaundice. Several cases who did not develop jaundice complained of skin irritation. Bacteriological examination was negative and the kitchen was found satisfactory. The only food prepared there was milk, orange juice and rusks for the children, and tea and coffee for the staff. The dinners were brought from a nearby canteen and enquiry failed to reveal any similar outbreak among other schools served by this canteen. No further cases occurred after the end of June.

It would appear probable that this outbreak was due to the virus of Infective Hepatitis in all cases and that the 39 cases were examples of Sub-icteric Infective Hepatitis.

An Outbreak of Paratyphoid Fever in a Large School

Site and Description

The school concerned has an average of 710 pupils aged 9 to 18 years on the roll.

The school was built in 1906 and is a large, rambling building, excellently maintained, but to an extent overcrowded, and at the time of the outbreak additional classrooms were in the course of erection. The water supply is from the main Bradford supply and the drainage system is connected to the main sewers of the City.

School Meals

Mid-day meals are served at the school and are taken by 450 to 500 of the pupils. Meals were first served at the school in 1938, when about 50 dinners were brought in already cooked. Owing to war time conditions it was necessary to cook on the premises and the number of dinners increased to about 450, but there was little change in the facilities provided. At the time of the outbreak a new kitchen and dining room were being built. Space and equipment in the kitchen was therefore limited and the pupils ate their meals under crowded conditions.

History of Outbreak

The school re-assembled after the summer vacation on 12th September 1951. On the morning of 2nd October (that is to say 19 days later), a case of paratyphoid fever in a child aged 13 years was notified, and the diagnosis was confirmed bacteriologically on 4th October. On 5th October, 2 cases which had been admitted to the Bradford Children's Hospital as possible cases of appendicitis were found to be suffering from paratyphoid fever. A common factor in the 3 cases was attendance at the above mentioned school.

The occurrence of 3 cases from the same school indicated a common source of infection and the possibility of an extensive outbreak. In fact, between 5th October and 9th October, 30 cases had been admitted to hospital, and a further 33 by 20th October, when the last clinical case of the outbreak was admitted.

Dates of Admission to Hospital of Clinical Cases and Symptomless Excreters

		October																															Nov.	
Clinical	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2
	Cases	1	-	-	1	4	5	3	4	11	7	6	7	6	5	1	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Symptomless Excreters	-	-	-	-	-	-	-	-	1	-	2	8	20	6	2	-	1	3	-	-	2	-	-	-	-	-	-	-	-	-	-	-	1

In addition to the 63 clinical cases diagnosed, examination of the faeces and urine of the remaining pupils revealed the existence of 47 symptomless excreters, and in addition to the 110 school children thus infected, 2 adults were found to be symptomless excreters.

Secondary infection of persons not attending the school, but household contacts, occurred in 4 cases. One of these was a mild clinical case and 3 were symptomless excreters.

The majority of those affected were admitted to the Leeds Road Fever Hospital, but 41 were admitted to isolation hospitals outside the City. The average period of stay in hospital was 43 days.

Only a few of the 63 clinical cases were seriously ill; most had very mild symptoms, making it difficult to distinguish them from symptomless excreters.

The majority of cases were discharged from hospital when 3 successive negative specimens of faeces and urine had been obtained at 3 day intervals. A week after discharge these cases were visited in their homes and further specimens were taken as a final precaution before they returned to school. At this time, 6 children again gave positive results, and further specimens were taken until again 3 successive negative results were obtained.

Four cases remained persistently positive, and in the end they were discharged from hospital to be kept under close observation at home. These included 2 pupils and the 2 adults mentioned above. The pupils continued to excrete the organism for some time but were eventually returned to school free from infection; 1 had given positive results continuously for 22 weeks. The 2 adults concerned, on the

other hand, have remained consistently positive up to the present. Later investigation revealed that 1 adult had not acquired the infection as a result of the outbreak, as she was found to be excreting an organism of different Phage type from that which caused the outbreak.

Control Measures

By 5th October enough evidence had been obtained to suggest that the source of infection was probably in the school canteen; the canteen staff were immediately suspended from duty, and the thorough cleansing of utensils, cutlery and equipment was undertaken over the weekend. Replacement canteen staff were obtained by the help of the Bradford School Meals Organiser, and a service of lunches prepared by the new staff was continued on Monday, 8th October.

Letters were now sent to the parent or guardian of every pupil attending the school informing them of the position, and asking for their co-operation in the detection of cases and symptomless excreters.

General practitioners in Bradford were informed of the outbreak. Because some of the children attending the school lived outside the City the Medical Officers of Health of surrounding areas were also informed and a meeting of the latter was held in Bradford when arrangements for uniformity of action in the different areas was decided upon. The Ministry of Health was also notified and a medical officer of the Ministry visited the City during the early stages of the epidemic.

It was early decided that a more effective control could be exercised over the pupils if they continued to attend school, and this policy was continued throughout the outbreak, even when as many as 110 cases of infection had been discovered.

Particular attention was given in the first instance to absentees from the school, a list of whom was furnished daily. These were visited in their homes by health visitors and sanitary inspectors, specimens of faeces and urine were obtained and the general practitioner's attention drawn to the possibility of paratyphoid infection.

Whilst the search for clinical cases continued, it was decided to examine the pupils and staff still in attendance to find missed clinical cases, early cases and symptomless excreters.

The decision not to close the school proved to be most helpful in carrying out the search for unrevealed infection, and by the ready co-operation of the staff specimen jars for distribution to each child in attendance at the school were given out, and the jars returned by the children on subsequent days. This might be regarded as a somewhat unsatisfactory method of collecting specimens, through the agency of the children themselves, but in practice it worked well, and by 17th October the examination of specimens of faeces and urine from every child and member of the staff had been completed. This procedure was repeated on 2 subsequent occasions. In the first 2 rounds, 47 symptomless excreters were discovered and transferred to hospital, but in the third and last round, no positives were discovered.

The prevention of a widespread epidemic in the City and surrounding areas was obviously dependent upon the introduction of effective measures of control of contacts who were in any way concerned in the handling and preparation of food. There were 10 such persons occupied in various branches of the food trade. With the ready co-operation of the employers, they ceased work and remained under observation in their homes until it was established that they were free from infection. None of these in fact ever gave a positive result. In this connection all food preparing establishments in the City were informed of the outbreak and of the necessary precautions to be taken.

Other contacts were dealt with as follows. Adult household contacts (other than food handlers and school teachers) were allowed to continue their employment whilst 2 negative specimens were obtained. Child household contacts in attendance at other schools were excluded from school for 1 week during which time at least 1 negative specimen was obtained. Another negative was obtained after they had returned to school. Five school teacher household contacts were excluded from

school for 1 week when 1 negative result was obtained and were then allowed to resume attendance on the understanding that they took no part in the serving of school meals until 2 further negative results were forthcoming.

To make certain that known contacts were not being inadvertently admitted to the general and children's hospitals of the City suffering from some other disease, daily admission lists were forwarded to the Health Department for scrutiny.

Epidemiological Investigations

Two facts emerged early in the investigation—(i) that the cases were all children attending the school, and (ii) that they were all in the habit of taking the school meals. Subsequent clinical cases and symptomless excretors all gave the same history of having partaken of the school's meals. Attention was therefore focused on the school kitchen and the dining room arrangements.

The kitchen was very small and the dining room space was limited but the management and general arrangements for the preparation and serving of food were good in the circumstances. Of the 710 pupils attending the school approximately 450 taking the school dinners were served in 3 sittings between 12 noon and 1 p.m. At about 11.40 the first course was served on to plates which were then stacked and separated by aluminium covers in a hot cupboard till required. The cupboard when full contained about 350 plates. At 12 noon the first dinner started; the plates that had been served first were handed out to the pupils of Form 1 as they came into the dining room, so that they ate the food which had been served at 11.40 a.m. The hot cupboard contained sufficient servings for the whole of the first 2 sittings and for approximately the first 50 pupils in the third sitting. The remainder of the third sitting were served from dishes that had been continuing cooking in the kitchen. The second course was served on to plates in the kitchen as required at each sitting and carried into the dining room

by child servers selected at random from the diners. The dining room tables were set by 5 children who differed each day, and for the subsequent sittings, each child collected a clean knife, fork and spoon from a box in the corridor outside the dining room.

The children dined in order of form—the first sitting being composed of 4 classes of Form 1 and 2 classes of Form 2, the second sitting 2 classes of Form 2, 4 classes of Form 3 and 2 classes of Form 4 and the third sitting 2 classes of Form 4 and Forms 5 and 6. In the third sitting it was the custom for the pupils of the 2 classes of Form 4 to be served first. This was significant in that the majority of the Form 4 pupils, particularly in the third sitting, received their first course from the hot cupboard, as did all the pupils of the previous 2 sittings. On the other hand the Form 5 and 6 pupils served last at the third sitting received their helpings direct from dishes that had been continuing cooking in the kitchen.

There was not a single case of infection amongst these pupils of Forms 5 and 6. This is shown in the following table which gives the distribution of infected pupils by form and by sitting.

Distribution of Infected Children in the School

Dinner Form Class	First								Second								Third				Total
	1				2				3				4				5 & 6				
No. in Class	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	5 & 6				
No. taking dinner	36	33	37	41	37	37	36	37	29	34	35	36	33	31	34	32	152	710			
No. infected	22	30	30	24	21	29	19	15	17	20	30	26	15	20	21	15	85	439			
Total infected	11	15	14	10	4	6	4	3	3	3	10	7	5	1	8	6	0	110			
% diners infected	50				17				23				20				0				110
	47				21				25				28				0				25

Note: Each of Forms 1 to 4 was divided into four classes (*a*, *b*, *c* and *d*).

The infection appeared to be confined to those children who had received their first course from the hot cupboard, with a significantly higher attack rate in the children at the first sitting than in those at the second and third.

Attention was first directed towards the kitchen worker Mrs. C., who was found to be a profuse faecal excreter. She had nothing to do with the handling of food, and was solely employed drying plates by

hand. She arrived for work at 11.30 a.m. and ate her dinner at about 11.45 a.m. At 12.15 p.m. she started drying plates. It seemed possible that she might have infected the plates and that if there was still some moisture on the plates *S. paratyphi B.* might have multiplied on them while they stood overnight. It would have been possible to account for the distribution of infected persons in this way, but Dr. Felix, Director of the Enteric Reference Laboratory, on the results of numerous serological examinations, considered that she was a victim of the outbreak, not its cause, and it was found that *S. paratyphi B.* failed to survive overnight on plates moistened with contaminated washing-up water.

Serological examination of the other 6 members of the kitchen staff was carried out between 8th and 18th October. The results of these examinations suggested that 3 other members of the kitchen staff, one of whom was the cook Mrs. D., had had a recent infection with *S. paratyphi B.*, though none of them had had any symptoms. One of these 3 gave up work and the other 2 were re-examined 9 days after the first examination, when the titres for both the O and H antigens of *S. paratyphi B.* showed a marked decrease. Repeated examinations of faeces and urine from these members of the kitchen staff were made from 7th October with consistently negative results. Most of the kitchen staff ate their dinner before the first sitting started and might, therefore, have acquired an infection in this way. The cook Mrs. D. always ate her dinner after the third sitting was completed and would not be expected to be infected from this source

Inspection of the menu and enquiry as to the method of preparation of the meals made it clear that the second course of the dinner could not have been infective. Of the various dishes served as a first course, shepherds pie, which was served on 13th September and 20th September, appeared to be the only possible vehicle. This was prepared as follows. Fresh minced meat was stewed with water and allowed to cool in the boiler. The meat was strained from the stock and placed in 2 pie dishes that were placed overnight in the refrigerator. If contamination

of the meat took place at this time, bacterial multiplication would occur both in the meat and in the stock. The following day the meat was distributed into 9 enamel pie dishes, a layer of freshly cooked onion placed on top, some of the stock in which the meat was stewed was added and a layer of hot freshly cooked mashed potato placed on top. The stock had remained overnight in the boiler and another part of it was boiled to prepare gravy.

The completed pies were then placed in the oven at about 11.15 a.m. and at 11.40 a.m. serving was commenced—each pie produced about 50 servings. Two pies were not placed in the oven until 12 noon and remained there till 1 p.m. when they were used for the majority of the third sitting. It was clear that the time allowed for the pies to heat was very short, particularly for the pies served to Form 1. The pies served to Forms 2, 3 and 4 had rather longer in the oven, while the pies served to Forms 5 and 6 were adequately cooked.

After the outbreak was over, temperature measurements were made in pies as removed from the oven for serving. It was found that the temperature of the meat in an individual pie might vary by as much as 5°C . in different parts of the same pie, but the lowest temperature recorded was 65°C ., which would be expected to kill *S. paratyphi B*. This temperature was recorded in the first pie—pies removed later were about 5 to 7°C . warmer. These observations were made after the outbreak when the kitchen technique may well have been improved and the staff knew in advance that such measurements were going to be made. A slight delay in the preparation of the pies could easily reduce the time they spent in the oven by 10 minutes, and it is unlikely that they would then reach a temperature that would kill *S. paratyphi B*.

Conclusion

It was concluded, therefore, that the infection was spread by the first course of the dinner served at the school and that shepherds pie was, most probably, the vehicle, possibly on 2 separate occasions.

Four members of the kitchen staff were found to have been infected with *S. paratyphi B.* and although at least one, Mrs. C., was a victim of the outbreak, one of the others may have acquired their infection at the end of the summer holidays. Twenty four days elapsed between 13th September when the first shepherds pies could have been infected and 7th October when faeces from the kitchen staff were obtained, and a temporary carrier could have ceased to excrete *S. paratyphi B.* during this period.

Acknowledgements

The above report has been largely compiled by Dr. V. P. McDonagh, Deputy Medical Officer of Health, and Dr. A. J. H. Tomlinson, Director of the Public Health Laboratory Service, Bradford. I would express my personal appreciation of the invaluable assistance given by Dr. Tomlinson and the staff of the Laboratory Service throughout the outbreak.

Vaccination and Immunisation

Smallpox Vaccination

During the year 1951 there were 1,043 primary vaccinations and 761 revaccinations, as against 682 primary and 448 revaccinations in 1950.

It will be noted that the increase in smallpox vaccination continues. The health visitors have continued to encourage parents to have their children vaccinated against smallpox and it may be that now these efforts are bearing fruit. The local health authority also arranged for general practitioners to provide free vaccination against smallpox and immunisation against diphtheria for all the parents who might desire this service.

During the year, apart from vaccinations against smallpox, fifty-three persons who intended to go abroad were inoculated with T.A.B. vaccine, and twenty-five with cholera vaccine.

Diphtheria Immunisation

During the year, 4,584 children under 15 years of age were immunised against diphtheria, as against 4,391 children in 1950. Of this total, 3,111 immunisations were carried out by medical officers of the health department, and 1,473 by general practitioners.

It is pleasing to record this slight rise for which the propaganda campaign carried out in the early part of the year may well be responsible.

On the 31st December, it was estimated that 45 per cent of children under 5 years of age, and 66 per cent in the age group 5 to 15 had been immunised against diphtheria. During the year, the special follow-up work in connection with the Medical Research Council's survey of the reactions to P.T.A.P. ceased.

Whooping Cough Immunisation

The number of children immunised against whooping cough in 1951 was 482. As in previous years, no special efforts were made to encourage immunisation, as it is not yet known which of the vaccinations, if any, is the most reliable.

Bradford Chest Clinic

H. Vallow, M.D., D.P.H., *Consultant in Chest Diseases*

The Bradford Chest Clinic is open for general consultation on eleven sessions a week, one being held in the evening for workers, and another kept specially apart for children.

The actual number of attendances during the year 1951 was 14,797, an increase of 1,224, of which 1,719 were new cases.

Cases diagnosed as definitely tuberculous are shown in the following table:-

		Adults		Children	Total
		Male	Female		
(a)	Respiratory Tuberculosis	118	81	27	226
(b)	Non-Respiratory Tuberculosis ..	8	5	6	19
		<u>126</u>	<u>86</u>	<u>33</u>	<u>245</u>

Cases crossed off the register during the year are shown in the following table:-

Cases crossed off the register during the year				Respiratory		Non-Respiratory			Totals		
				Adults	Children	Adults	Children	Adults	Children		
				M.	F.	M.	F.				
(a)	Recovered	..	..	9	6	1	2	4	1	21	2
(b)	Died	..	..	45	26	1	1	—	1	72	2
(c)	Removed to other areas			11	14	1	—	1	—	26	1
(d)	For other reasons	..		31	18	24	2	8	15	59	39
				—	—	—	—	—	—	—	—
				96	64	27	5	13	17	178	44

The number of persons on the Chest Clinic Register on December 31st, 1951, is shown in the following table:-

Respiratory Cases			Non-Respiratory Cases			Total	
Adults	Children		Adults	Children		Adults	Children
M.	F.		M.	F.			
695	455	99	56	50	53	1,256	152

The number of patients on the clinic register awaiting admission to T.B. Institutions is shown in the following table:-

Respiratory			Non-Respiratory			Total			Grand
M.	W.	Ch.	M.	W.	Ch.	M.	W.	Ch.	Total
18	1	5	—	—	—	18	1	5	24

The general health visitors paid 347 primary visits and 2,100 subsequent visits for Chest Clinic purposes.

The number of specimens of sputum examined was 2,126 and 3,318 X-ray examinations were carried out.

Examinations have been carried out for the Ministry of Pensions, the National Service Medical Board, the Ministry of Labour, the Ministry of Health and the Pneumoconiosis Panel (Ministry of National Insurance).

Welfare of the Tuberculous

Care and After-Care

Cases of tuberculosis eligible for tuberculosis treatment allowances have been referred to the National Assistance Board. Help is given at the Chest Clinic in claiming these and a close co-operation maintained with the Board, and necessary medical evidence supplied.

Extra nourishment has been given on the advice of the Chest Physicians.

Recommendations for suitable work and for training have been made to the Ministry of Labour and individual cases discussed with the resettlement officer who pays routine visits to the Clinic.

Close liaison has been maintained with the hospital almoners in all matters affecting the welfare of the tuberculous and with the various charitable organisations.

Applications for houses are now considered by the Medical Officer of Health's Department.

The following table shows the work done by the Welfare Department:-

	No. of cases
Housing points assessed ..	—
Priority certificates issued ..	816
Forms D.P.I.X. (Ministry of Labour) completed ..	59
Treatment allowances and interviews re general welfare ..	486

Thoracic Surgery

The centre for major thoracic surgery at the Bradford Royal Infirmary is now well established; a large number of cases have been treated by artificial pneumothorax and pneumo-peritoneum at the sanatoria and at the Chest Clinic. It has been necessary to set aside an additional session at the Chest Clinic for this purpose.

Contacts

913 "contacts" to definite cases of tuberculosis have been examined; of these 26 had manifestations of tuberculous disease.

At the end of the year 74 cases were still under observation at the Chest Clinic as there was radiological evidence of an infection but no manifestation of active disease.

210 "contacts" who had been previously examined at the Chest Clinic were "put through" the Mass Radiography Unit. No evidence of active disease was detected in any of these cases; three showed calcified inactive lesions.

Of the "contacts" under 15 years of age 70 per cent were sensitive to either 1/1000 mgms. or 1/100 mgms. Koch's tuberculin.

Medical Research Unit

1,029 school leavers have been tested by the Medical Research Unit. 52 per cent NON-contacts have been found to react to either 1/3000 mgms. or 1/100 mgms. Koch's Old Tuberculin.

Of the negative reactors one third have been inoculated with B.C.G. one third Vole Bacillus and one third Control.

European Voluntary Workers

On account of the large number of cases of pulmonary tuberculosis detected amongst the European Voluntary Workers, of which a special report has been submitted to the Ministry of Health and debated in Parliament, a special survey was conducted by the Mass Radiography Unit.

1,369 workers were examined and of these 13 showed evidence of active disease and 96 had calcified lesions.

A further survey will be made when the Unit next attends this area.

Mass Miniature Radiography

The Unit was in attendance at St. Luke's Hospital in November and December, 1951, when 7,496 men and women attended for examination. An average incidence in the general population was detected. The lowest incidence was amongst the teachers, nurses and the staff of the mental hospitals, none of whom showed evidence of active disease. The largest incidence was amongst the European Voluntary Workers—9.5 per 1,000 examined and industrial workers 3.9 per 1,000.

Venereal Diseases

I am indebted to Dr. Charles Heywood, Consultant Venereologist, for the following report:-

The Venereal Diseases Treatment Centre at St. Luke's Hospital continues to be housed in a wooden army hut of the first World War. This has for long been condemned as unsatisfactory on the grounds of deficient accommodation, lack of amenities, and its discouraging effect upon patients. In particular there is a regrettable absence of privacy between doctor and patient, and the accommodation for social and administrative work is inadequate. Plans for rehousing the treatment centre prepared in 1939 have not yet been implemented because of the war and the post-war economic situation, but a scheme for complete re-organisation of the inside of the building has been adopted and will be carried out early in 1952. This will overcome the major drawbacks of the present plan, and within its structural limitations the centre is well equipped and staffed to carry out the diagnosis and treatment of venereal diseases.

The statistics for 1951 show a further slight decline in the incidence of new infections upon those of 1950. This is most marked in the case of early infectious syphilis, which in most of our inland towns is becoming a relatively rare disease. The decline in gonorrhoea is less pronounced, despite the great effectiveness of present-day treatment, because of the difficulty of eradicating the hard core of infection amongst promiscuous women. That there has been no real decline in sexual promiscuity is shown by the continued high proportion of "non-venereal" cases presenting themselves for examination and treatment, amounting to roughly half the new admissions for the year, but with the gradual elimination of the foci of infectious venereal disease in the community the risks attached to promiscuity are minimal. Of the 12 cases of inherited syphilis seen in the year, none occurred in children under 1 year, a striking tribute to the effectiveness of the routine blood-testing in ante-natal clinics. In general it may be said that venereal disease has ceased to constitute a serious public health problem in Bradford. May this happy state of affairs persist.

The number of new registrations and the attendances at the clinic during the past 20 years are shown in Table 1.

TABLE 1 *Number of New Registrations and Attendances at Clinic, 1932-1951.*

Year	Venereal Diseases		Non-Venereal Diseases		Total Attendances	
	Male	Female	Male	Female	Male	Female
1932	336	111	146	68	16,720	4,243
1933	460	146	149	84	21,991	4,921
1934	386	96	188	78	19,811	5,471
1935	438	157	177	73	21,461	6,620
1936	277	131	140	63	15,714	5,237
1937	366	105	151	72	19,429	6,520
1938	363	134	197	88	15,622	5,869
1939	333	129	200	69	10,408	3,906
1940	278	100	143	69	7,687	4,916
1941	423	111	148	113	7,376	4,050
1942	304	156	140	91	6,639	5,266
1943	352	193	216	190	7,525	6,171
1944	292	221	223	221	7,530	6,797
1945	343	310	259	238	10,064	10,472
1946	815	291	554	212	16,487	10,677
1947	622	287	456	226	11,235	9,326
1948	358	229	440	144	9,040	6,859
1949	293	184	400	133	7,957	5,647
1950	228	148	431	155	7,659	4,582
1951	194	107	390	101	7,370	4,292

TABLE 2 *Analysis of the Cases admitted and discharged during the year 1951.*

(a) ADMISSIONS

1. Number of cases under treatment or observation on 1st January, 1951:-	Males	Females	Total
Suffering from Syphilis	171	215	386
Suffering from Gonorrhoea	19	9	28
Suffering from other conditions	55	19	74
Totals	245	243	488
2. Number of cases defaulting during previous years who returned in 1951:-	Males	Females	Total
Suffering from Syphilis	16	21	37
Suffering from Gonorrhoea	12	—	12
Suffering from other conditions	4	—	4
Totals	32	21	53

3. Number of new cases dealt with for the first time during 1951, suffering from:-								
Early (infectious) acquired syphilis	..	..	..	..	24	7	31	
Late (non-infectious) acquired syphilis	..	..	..	..	21	34	55	
Congenital syphilis	..	..	..	..	5	7	12	
Gonorrhoea	..	..	..	..	94	31	125	
Chancroid	..	..	..	..	2	—	2	
Non-venereal conditions	..	..	..	..	376	101	477	
Totals	..	..	..	..	522	180	702	
4. Number of cases transferred from other treatment centres, suffering from:-								
Syphilis	..	..	..	..	19	7	26	
Gonorrhoea	..	..	..	..	3	—	3	
Other conditions	..	..	..	..	8	—	8	
Totals	..	..	..	..	30	7	37	
Total of items 1, 2, 3 and 4	..	..	..	..	829	451	1280	

(b) DISCHARGES

5. Number of cases discharged after completion of treatment and surveillance, suffering from:-								
Syphilis	..	..	..	..	71	96	167	
Gonorrhoea	..	..	..	..	76	26	102	
Other conditions	..	..	..	..	396	110	506	
Totals	..	..	..	..	543	232	775	
6. Number of cases defaulting before completion of treatment or surveillance, suffering from:—								
Syphilis	..	..	..	..	18	33	51	
Gonorrhoea	..	..	..	..	25	6	31	
Totals	..	..	..	..	43	39	82	
7. Number of cases under treatment or observation known to have died during 1951								
	..	..	..	..	4	7	11	
8. Number of cases transferred to other treatment centres, suffering from:-								
Syphilis	..	..	..	..	21	13	34	
Gonorrhoea	..	..	..	..	11	2	13	
Other conditions	..	..	..	..	3	—	3	
Totals	..	..	..	..	35	15	50	
9. Number of cases remaining under treatment or observation on 31st December, 1951, suffering from:-								
Syphilis	..	..	..	..	143	142	285	
Gonorrhoea	..	..	..	..	16	6	22	
Other conditions	..	..	..	..	45	10	55	
Totals	..	..	..	..	204	158	362	
Totals of items 5, 6, 7, 8 and 9	..	..	..	..	829	451	1280	

The number of attendances distributed according to disease was as follows:—

TABLE 3

			Attendances		
			Male	Female	Total
Patients suffering from Syphilis	..	..	4292	3656	7948
Gonorrhoea	..	..	801	188	989
Other conditions	..	..	2267	448	2715
Totals	..	..	7370	4292	11,662

The geographical distribution of new cases seen during the year is shown in the following table:—

TABLE 4

Area	Syphilis	Gonorrhoea	Other conditions
Bradford	81	109	376
West Riding County Council	15	14	91
Huddersfield	2	—	—
Dewsbury	—	1	—
Doncaster	—	1	—
Leeds	—	—	3
Barnsley	—	—	2
Other Areas	—	—	5

Pathological examinations for the diagnosis and surveillance of venereal diseases were carried out both at the Treatment Centre and at the Public Health Laboratory, Edmund Street, as shown below:—

TABLE 5 *Pathological Examinations, 1951*

	Treatment Centre	Public Health Laboratory
Microscopical examinations for syphilis	50	—
Microscopical examinations for gonorrhoea	1037	—
Cultural examinations for gonorrhoea	—	593
Blood tests for syphilis	—	2511
Blood tests for gonorrhoea	—	2
Cerebro-spinal fluid examinations	—	211
Others	10	6

A Social Worker, Miss J. Anderson, is employed by the Local Health Authority, and attached to the Treatment Centre. Wherever possible, active measures are taken to ensure the examination of all contacts

of known cases of venereal disease, and to secure the return of any patients who default during the course of treatment. Of the 717 patients under treatment or surveillance for venereal disease during 1951, 82 defaulted before being discharged as cured (slightly more than 11 per cent), but because of the rapidity and effectiveness of present-day treatment schedules, none of these was in an infectious condition.

New Claims for Sickness Benefit

The number of new claims for sickness benefit made in Bradford during 1950 and 1951 are illustrated in Fig. 13.

NUMBER OF NEW CLAIMS FOR SICKNESS BENEFIT BRADFORD, 1950 and 1951

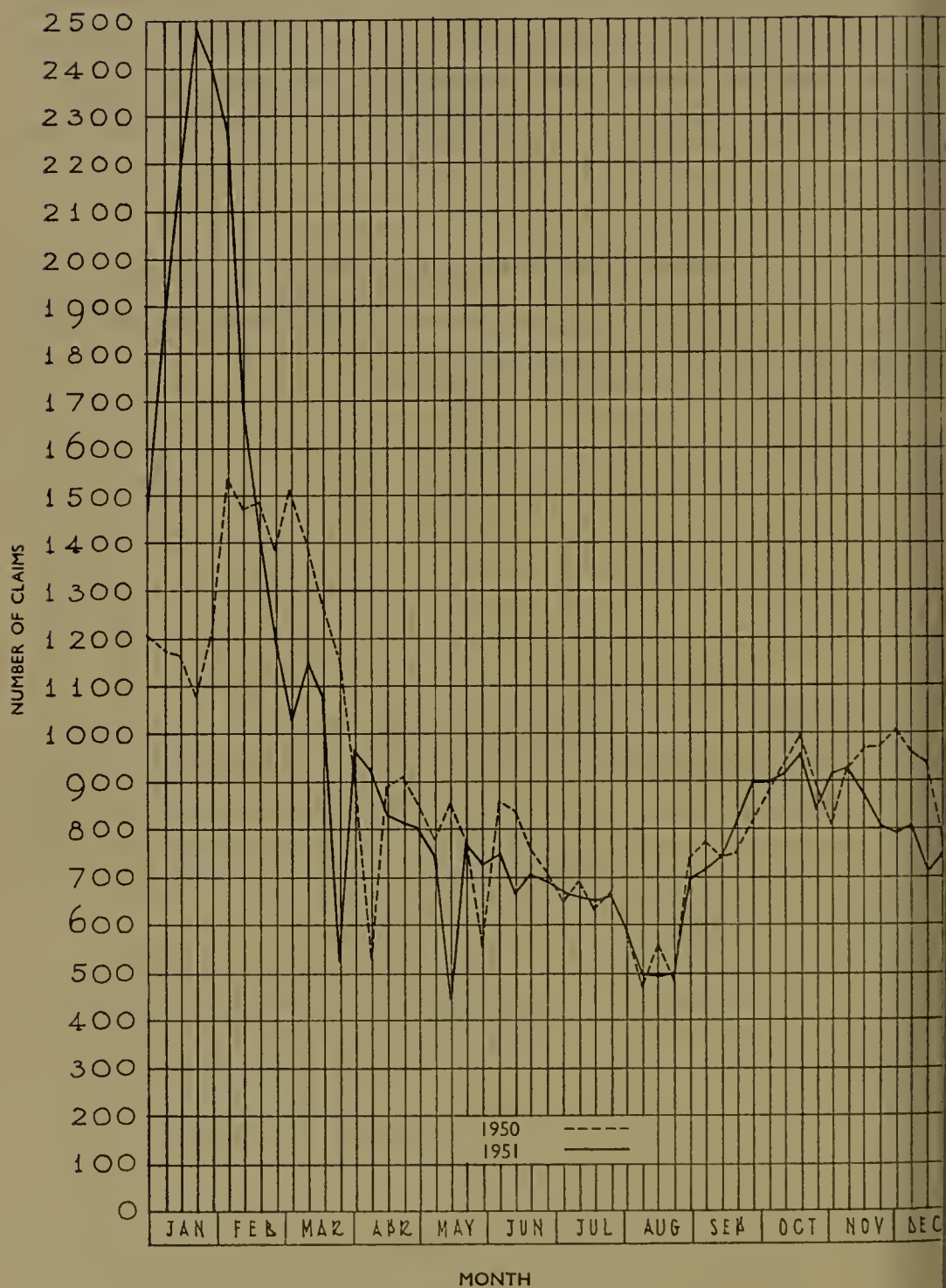


Fig. 13

Care of Mothers and Young Children

CLINICS AND BRANCH CLINICS

PREMATURE INFANTS

CARE OF UNMARRIED MOTHERS AND THEIR
CHILDREN

MATERNITY CARE COMMITTEE

DAY NURSERIES

DOMICILIARY MIDWIFERY

MIDWIFERY TRAINING SCHOOL

DENTAL CARE

HEALTH VISITING

HEALTH VISITORS TRAINING SCHOOL

Care of Mothers and Young Children

H. M. GALL, M.B., Ch.B.,

Senior Assistant Medical Officer of Health for Maternity and Child Welfare

Care of Mothers and Young Children

During the year the only extension to the work of the Department was the opening of the Brownroyd Day Nursery in July.

There was a slight fall in the number of births and a corresponding drop in the attendances at child welfare clinics.

Ante-Natal Clinics

Twenty-two sessions are held monthly at the Central, Bierley and Usher Street Clinics. The number of patients making first visits was slightly higher than in 1950. These premises are also used by the midwives of the district for their weekly clinics at which they see their own patients. This arrangement is convenient for the midwives and their patients, but can only be made at district clinics where the premises belong to the Health Department.

One session weekly at the Central Ante-Natal Clinic is reserved for post-natal cases. The total attendances of such patients during the year has increased since the previous year, but is still too small. Post-natal cases are also examined at the Usher Street and Bierley Clinics. The number of patients attending the ante-natal clinics for blood investigation was 2,505.

			Cases	Total Attendances	New Cases
Ante-Natal	..	..	1,062	3,135	958
Post-Natal	..	..	222	292	192

Child Welfare Clinics

The Central Clinic is open daily and there are 17 branch clinics throughout the City. The number of infants under one year of age registered at the centres was 3,265 or 68 per cent of the total live births. This excellent figure is, however, not maintained in subsequent attendances. Because the health visitors' staff is still much below establishment we frequently lose touch with babies in their early months at a time when continuous supervision and instruction in infant care are most necessary.

No. of children attending	..	..	..	9,360
First Attendances:				
Under one year of age	..	..	..	3,265
Over one year of age	..	..	..	107
				3,372
Total attendances of:				
Infants under one year	..	..	..	47,560
Children over one year	..	..	..	15,845
				63,405

Child Welfare Clinics in Bradford

Clinic	Days of Attendance	Time of Attendance	Attendances during year
Central, Edmund Street	Daily	Morning and Afternoon	16,533
Southend Hall	Thursday	Afternoon	1,623
Green Lane	Monday and Thursday	Afternoon	5,667
Otley Road	Wednesday	Morning and Afternoon	5,143
Brownroyd	Tuesday	Morning and Afternoon	5,013
Great Horton	Monday	Morning	2,282
Usher Street	Wednesday	Afternoon	2,716
Low Moor	Tuesday	Morning and Afternoon	3,325
Lapage Street	Monday and Thursday	Afternoon	4,423
Idle	Tuesday	Afternoon	2,103
Ravenscliffe	Friday.. ..	Afternoon	3,227
Clayton	Alternate Wednesdays	Afternoon	1,461
Bierley	Thursday	Afternoon	1,554
Esholt	Wednesdays monthly	Afternoon	186
Nursing Mothers' Ward	Monday, Tuesday, Wednesday and Friday	Morning and Afternoon	957
Daisy Hill	Alternate Mondays ..	Morning	1,394
Lidget Green	Alternate Thursdays..	Morning	1,375
West Bowling (Muff Field).. ..	Friday	Morning	2,862
Thornton (Mechanics' Institute)	Friday.. ..	Afternoon	1,561

Premature Infants

During 1951:—232 premature infants were born in hospital

107	"	"	"	"	at home
15	"	"	"	"	in nursing homes
354					

10 premature infants were transferred to hospital soon after birth.

						Died within first 24 hours	Died before end of 1 month
Of the 242 premature infants nursed in hospital ..						32	17
"	"	97	"	"	at home ..	4	4
"	"	15	"	"	in nursing homes	—	1
Of the 354 premature infants, 282 were alive on 31st December, 1951.							

Of the premature infants born in 1950, 272 were alive on 1st January, 1951; 268 were alive at the end of 1951.

Care of Unmarried Mothers and their Children

There were 282 illegitimate babies during the year. Liaison was established between all social workers whether members of voluntary organisations or of statutory bodies, so that help and advice would be available whenever necessary, whether before or after the birth of the child. Notification of cases comes usually from a hospital almoner when the mother makes application for a bed in the maternity hospital. This notification gives a brief summary of the arrangements, if any, made by the mother for confinement and afterwards. Later, if this is necessary, she is admitted to Oakwell House (the Mother and Baby Home) for the latter part of her pregnancy. After confinement in hospital such women return with their babies to the Home, and remain with us until fit to return to work. If then the mother has no home to go to she may live in the Home with her baby and continue her employment until the child is a year old.

The Home was opened at the end of 1950. During the year ended 31st December, 1951, there were 28 admissions, 27 being from the Bradford area. The average length of stay in the ante-natal period was $3\frac{3}{4}$ weeks and the average post-natal stay $12\frac{1}{2}$ weeks. The Home was

never full during the year, but towards December many more applications for admission were received. Applications have been received from neighbouring authorities who accept responsibility for the cost of maintenance of their own patients. Besides the work of rehabilitation, the mothers are taught the care of their infants and housecraft. Assistance is given to the girls in arranging legal and domestic matters, and they are helped to find suitable homes and work.

3 babies have been adopted

3 girls have been helped to obtain affiliation orders.

Grants were made to the Bradford Diocesan Council, and to the Leeds Catholic Diocesan Welfare Society for their similar work at St. Monica's Home, Bradford, and St. Margaret's Home, Leeds. We have received valuable help from the moral welfare workers attached to both these bodies.

		Average stay	
Admissions from Bradford to St. Monica's Home	7	..	9 weeks
„ „ „ „ St. Margaret's Home	13	..	14 „
Transfers from St. Monica's Home to Oakwell House	—		
„ „ St. Margaret's Home to Oakwell House	5		

In September, before Oakwell House became known and established as a Home, 2 rooms (4 cots) were set apart for the segregation during B.C.G. vaccination of infants of known tuberculous parents. These children are kept for approximately six weeks, or three months, depending on whether they have or have not been in contact with infection. Between September and December 1951, 5 babies were so accommodated.

Maternity Care Committee

The Mothers' Clubs, formed to carry out educational and social work among the mothers attending the Maternity and Child Welfare Department, continue to flourish and do good work. Wherever possible, these Mothers' Clubs are held on the same premises and on the same day as the Branch Clinics, and close co-operation is observed between the two. Clubs are held at Lilycroft, Wakefield Road, Otley Road, Manningham and Girdlington, and it is hoped to extend the work to more districts when rooms are available.

Silver Jubilee Home, Heysham

This Home is administered by the Bradford Maternity Care Committee. During the year 219 mothers and 327 children stayed at the Home, mostly for a period of two weeks. The Home has proved to be a great boon to those mothers or children (aged 5 years or under) who have been ill, and find this the only means of getting the necessary rest and change of air. There is always a waiting list during the summer months, and an extension of the present building is very desirable.

Day Nurseries

Brownroyd Day Nursery was officially opened in July, 1951 by the Chairman of the Health Committee. This nursery is a permanent structure built to the plan of the Ministry of Health, and embodies all the experience that has been gained in the planning and running of day nurseries in the past ten years. The nurseries themselves are airy and light and the toilet accommodation modern and specialised. The babies' nursery and toilet room are completely separate from the rooms for the older children, minimising the risk of cross infections to the very young—a serious consideration when infants of less than a year are admitted. The kitchen is excellent and a great improvement on those in the war-time nurseries, which are cramped and inconvenient. Other domestic details are equally good, and central heating, easily regulated, ensures a satisfactory temperature during the whole day. When it is remembered that babies in arms and little children are brought to the nurseries before 7 a.m. during the darkness of winter mornings, it will be appreciated how important is this innovation in day nursery equipment. The nursery is planned for 50 children.

With the opening of Brownroyd Nursery there are now 9 municipal day nurseries.

An extra nursery room was equipped during the year at Farcliffe Nursery, bringing the number of places there to 80. Staffing and equipment at all other nurseries is being increased so that the number of places will be increased by 20 per cent.

At December, 1951 the number of nursery places in the 9 nurseries was 380.

Of the 380 places:—

108 were for children under two years
272 " " " from two to five years

The average daily attendance was:—

Under two years 56
Two to five years 223

At December, 1951 the number of children on the register was:—

Under two years 76
Two to five years 326

It will be noted that the number of places occupied by older children is disproportionate.

The child population of the City was greatly increased in the years 1947 and 1948 and the nursery population reflects these figures. It is because of this increased number of children in the 3-5 ages that the nursery waiting list has become unmanageable, and it has been almost impossible to take younger children unless they had priority claims on social grounds. By the end of 1952 there should be many discharges to school of children who have occupied nursery places for several years, and the waiting list should be less formidable. It should also be possible to ensure that children of all ages from 0-5 years who require nursery accommodation urgently because of adverse home conditions, are admitted without delay. This service to neglected or deprived children should be the first consideration when allocating places if residential nursery accommodation is not available.

List of Nurseries

Name	Age of Children	Places	Yearly Attendances
Swain House Day Nursery	0-5	30	10,617
Canterbury Avenue Day Nursery ..	0-5	40	16,324
Bierley Day Nursery	0-5	40	12,730
Thornbury Day Nursery	0-5	40	15,763
Greaves Street Day Nursery	2-5	30	11,961
Princeville Day Nursery	2-5	40	15,817
Farcliffe Day Nursery	0-5	80	28,012
Thornlea Day Nursery	0-5	30	11,498
Brownroyd Day Nursery (opened July 1951)	0-5	50	8,413

The medical supervision of the nurseries is carried out by a doctor from the staff of the Maternity and Child Welfare Department, who also visits 4 of the 6 industrial nurseries in the City.

The training of nursery nurses has continued in conjunction with the Education Committee. Practical training is given at nursery classes and day nurseries, and at Oakwell House. Students attend the Nursery Nurses' Training School for 2 days weekly. Of the 20 students who presented themselves for the examination of the Nursery Nurses' Examination Board in 1951, 16 were successful in obtaining their diploma. Five joined the day nursery staff at the end of their training.

Domiciliary Midwifery

Supervision of all midwives in the City, except of those practising in hospital, was carried out by the Health Department as Supervising Authority.

Notifications of intention to practise in the area were received from 85 midwives as follows:—

	Notification of Int. to Practice	Cases Attended as	
		Midwife	Maternity Nurses
Municipal Midwives	32	1,891	88
Midwives in Private Practice..	5	—	12
Midwives in Nursing Homes ..	10	132	245
Midwives in Hospitals.. ..	35	—	—
Maternity Nurse	3	—	—

At December, 1951, there were 28 midwives on the staff.

Four midwives retired or resigned during the year.

Four appointments were made of pupils who completed their course at the Midwifery Training School.

The establishment of midwives was reduced to 33 and 1 supervisor in view of the smaller number of births and the assistance given to the Service by the Midwifery Training School.

The municipal midwives have given excellent service during the year. Because of the change in the distribution of population as the new housing estates absorb the surplus population of the older parts of the City, there has been some inequality of case load, but midwives have relieved each other ungrudgingly. Although younger people are predominantly the tenants of the new houses, there are still many births in the central areas. The resignation or retirement of older midwives, who own or rent their own homes in central districts, may necessitate some further provision of service houses in districts where Corporation houses are not available.

The granting of car allowances has been greatly appreciated by those midwives who have been able to obtain cars. Their patients have benefited from their greater availability and the supervisor has been able to arrange for relief in emergencies which, without motor transport, would have been difficult and certainly greatly delayed. A new and lighter instrument for the administration of gas and air is gradually replacing the original unwieldy apparatus, which is now almost obsolete. Midwives with cars will be issued with these for use in their own practices, thus facilitating the transport of gas and air apparatus by the Ambulance Service to midwives without cars.

Gas and Air Analgesia

Gas and Air analgesia was requested by	..	1,845 cases
" " " " " administered in		1,568 cases
" " " " " not available in		277 cases

Municipal midwives attended 1,979 deliveries during the year—1,891 as midwives and 88 as maternity nurses.

There were 2 maternal deaths. Both patients were admitted to hospital but died soon after admission.

The municipal midwives called in medical aid on 855 occasions:—

		Mothers	Babies
Cases who had arranged for obstetric medical service	..	409	94
" " " not arranged for obstetric medical service		282	70

The Midwifery Training School

The School continued to be well filled during the year, although there has been in Part I and Part II Schools generally a smaller number of pupils.

Pupils in training at 1st January, 1950	..	..	..	11
" " " " 31st December, 1950	..	..	..	12
Pupils who completed Part II training and gained their certificate	..	..	..	22

Of the students, 4 were appointed to the Municipal Midwifery Service.

Three students returned to St. Luke's Maternity Unit as staff midwives.

Two pupils who had not qualified as State Registered Nurses proceeded to this training at the Bradford Royal Infirmary.

Dental Care

H. S. SHOESMITH, L.D.S., *Dental Officer.*

The dental work of the Department has followed the course of the previous year; principally the inspection and treatment of expectant and nursing mothers from the Maternity and Child Welfare Department and from St. Luke's Hospital. Pre-school children attending the Child Welfare Clinics or Day Nurseries also received treatment.

The numbers of expectant and nursing mothers referred by the antenatal clinics for treatment have been rather more than in 1950. Much of the treatment in these cases consisted of filling and cleaning.

Each day nursery has been visited twice during the year, the children being systematically inspected and treated in an effort to ensure that none subsequently enter into school life in need of dental treatment.

The shortage of school dentists continues, and help was therefore given, from time to time, at the School Dental Clinic. This help was reciprocated by the Chief School Dental Officer, who attended at special

TABLE I

Dental Care, Summary of Work Done

Source	Number of Patients	Number of Visits	Temporary Teeth		Permanent Teeth		Scaling and Cleaning	Dentures and Repairs	Polishing and Trimming	Dressings	Regulation and Crowns	General Anaesthetics	Local Anaesthetics	Gingivectomy	Nerve Extractions	Root Dressings and Fillings	Silver Nitrate Treatment
			Extractions	Fillings	Extractions	Fillings											
St. Luke's Hospital Ante-Natal ..	76	213	—	—	205	70	21	11	11	20	—	62	7	6	—	—	—
Child Clinic Ante-Natal ..	120	331	—	—	274	103	32	28	41	25	—	80	29	—	2	5	2
Child Clinic Infants ..	1050	1311	1799	164	—	—	—	—	7	19	—	1080	2	—	—	—	11
Child Clinic Day Nursery Children	281	13	36	227	—	—	1	—	2	5	—	15	—	—	—	—	33
School Children ..	92	328	10	4	13	171	5	18	83	23	15	4	5	2	5	10	—
Occupation Centre ..	3	4	—	—	12	—	—	—	—	—	—	5	—	—	—	—	—
Grassington Sanatorium ..	123	7	—	—	88	54	19	22	9	8	—	1	49	—	—	—	7
Totals ..	1745	2207	1845	395	592	398	78	79	153	100	15	1247	92	8	7	15	53

anaesthetic sessions at the Child Welfare Dental Clinic. A number of school children were referred to the Child Welfare Dental Clinic for special treatment in the form of regulation work, root fillings and the provision of dentures.

The practice of making periodic visits to Grassington Sanatorium, under urgency arrangements, was continued.

Table 1 shows the number of patients who received treatment and the type of treatment given.

Health Visiting

The Health Visitors' Department continues to be greatly understaffed. Of the 5 newly certificated health visitors from the Training School, appointed during 1950, 4 resigned in 1951 at the end of their contract year, or shortly afterwards. At 31st December, there were 20 health visitors; an increase of 2.

Visits to babies up to one year	Children between one and five	Infectious diseases	Tuberculosis	Expectant mothers	After-care	Old people	Special visits	Other visits
25,403	35,182	2,974	2,443	970	270	224	756	232

It will be noted that 25,403 visits were made to 4,710 infants under 1 year of age. This average of 1 visit in the first month and 4 visits during the remainder of the first year is quite inadequate to ensure that mothers are advised in times of difficulty or illness, especially if attendances at the Child Welfare Centres are irregular, or the mother does not attend at all. At least 8 visits in the first year would be considered satisfactory.

The estimated number of children over 1 year and under 5 years in the City is 24,730, and 35,182 visits distributed among these is hardly a useful contribution to preventive care when only 4,099 of these children attended Welfare Centres.

Health Visitors Training School

Arrangements had been made for the 3 applicants for Health Visitors' training in 1950-51 to attend the Leeds University Course. The students completed their training and were successful in obtaining their certificate in 1951, when they were appointed to the staff.

New conditions of training, pay and contract were agreed by the City Council and the 1951-52 course of training commenced at the Bradford Technical College in October, 1951. There are 6 Bradford students and 3 from neighbouring authorities. On certification the new students will be required to give two years' service in Bradford.

Section 4

Children Neglected or Ill-Treated in their own Homes

Children Neglected or Ill-treated in their own Homes

Towards the end of July, 1950, a circular was issued by the Home Office, Ministry of Health and Ministry of Education, on the subject of 'Children neglected or ill-treated in their own homes'. In producing this circular, the Ministries had considered a report made by a working party of officials of the Home Office, Ministry of Health and Ministry of Education, which examined the various aspects of the matter. The conclusion was reached that the present need is not for an extension of statutory powers or for an inquiry by a departmental committee, but for the fully co-ordinated use of the local authority and other statutory and voluntary bodies available.

The resources of local statutory and voluntary organisations cannot be used to the best advantage unless there is effective co-ordination. It is of the first importance that help, where needed, should be given at an early stage and that information should reach the services before valuable time has been lost and harm has been done. If the right help is not given at the right time, children may have to be removed from home because deterioration has gone too far. The government accordingly decided to ask local authorities to introduce arrangements designed to ensure that action is co-ordinated to make the most effective use of the available resources. The Councils of Counties and County Boroughs were asked to make suitable arrangements to secure co-ordination among all the local services, statutory and voluntary, which are concerned with the welfare of children in their own homes. This, it was suggested, could be achieved by designating an officer of the local

authority whose task it would be to ensure such co-ordination. By this means, significant cases of child neglect and all cases of ill-treatment coming to the notice of any statutory or voluntary service in the area could be considered and agreement reached as to how the local services could best be applied to meet the need.

Arising out of this recommendation, the City Council appointed the Medical Officer of Health to be the Officer responsible to the Council for inviting the interest and services of persons concerned in the welfare of children in their own homes, and to arrange for regular meetings of the Authority and of representatives of the other bodies concerned.

The first meeting was well attended and among those present were chief officers of the Local Authority, the Clerk to the Justices, representatives of the Bradford Council of Social Service, the National Society for the Prevention of Cruelty to Children, the Women's Voluntary Services, the National Assistance Board, churches and the Marriage Guidance Council. The constitution and functions of the Committee were discussed at length and all present agreed to do everything in their power to co-operate with the Designated Officer in attempting to solve the many problems involved.

At this meeting it was also decided that a Case Sub-Committee be formed, made up of field workers concerned with the problem. It was hoped that this Committee would meet at least once a month to deal with all cases of child neglect or ill-treatment which came to the notice of the Designated Officer.

During the year there have been 7 meetings of this Case Sub-Committee, with an average attendance of 15 workers. The problems of 31 families have been discussed and in all cases appropriate assistance has been forthcoming to meet the needs of the families. Beds, bedding and children's clothing have been provided, and strong efforts have been made towards the rehousing of many who were living under unsatisfactory conditions.

During the year a small survey was completed of 60 families which had come to the notice of the Health Department because the children were alleged to be neglected, and several important facts emerged. The main conclusions to be drawn from the survey were as follows:—

- (1) The high proportion of educationally sub-normal children of the sample.
- (2) The large number of mothers who were assessed as below normal, both physically and mentally.
- (3) The high weekly income in many cases, both relatively and absolutely.

After a year's experience it can be said that this Committee has served a useful function by bringing into close personal contact all the various field workers concerned in the problem, and it has been possible to assess more accurately the causes leading to so much of this neglect. The Committee appreciated that its own resources and powers, being those of a co-ordinating committee, were quite inadequate to deal effectively with many of the causes, and it was accordingly decided to explore the possibility of setting up in Bradford a voluntary organisation of the type of the Family Service Unit.

School Health Service

STAFF

CO-ORDINATION

SCHOOL HYGIENE

LANGLEY RESIDENTIAL SCHOOL

TUBERCULOSIS

HEALTH EDUCATION

TREATMENT OF WARTS AND
ENURESIS

MEDICAL INSPECTION

SPECIAL EDUCATIONAL TREAT-
MENT

CASES SEEN BY OPHTHALMIC
SURGEON

DIPHTHERIA IMMUNISATION

CHILDREN'S FEET

INFECTIOUS DISEASES

CO-OPERATION OF PARENTS,
TEACHERS, ETC.

DISEASES OF THE SKIN

VISUAL DEFECTS AND EXTERNAL
EYE DISEASE

EAR DISEASE AND HEARING

NOSE AND THROAT DEFECTS

DEFECTIVE SPEECH

OTHER DEFECTS AND DISEASES

PHYSIOTHERAPY REPORT

ULTRA VIOLET RAY THERAPY

MARGARET McMILLAN SCHOOL
FOR EDUCATIONALLY SUB-
NORMAL CHILDREN

LISTER LANE SPECIAL SCHOOL
FOR PHYSICALLY HANDI-
CAPPED PUPILS

DAISY HILL SCHOOL FOR PARTI-
ALLY SIGHTED

ODSAL HOUSE SCHOOL FOR THE
DEAF

LINTON RESIDENTIAL RECOVERY
SCHOOL

LIP READING

SPEECH THERAPY

CHILD GUIDANCE

DENTAL REPORT

MEDICAL INSPECTION RETURNS

City of Bradford

Annual Report of the School Medical Officer, 1951

School Medical Officer: JOHN DOUGLAS, M.D., D.P.H.

Deputy School Medical Officer: V. P. McDONAGH, M.B., CH.B., D.P.H.

Senior Assistant School Medical Officer: V. H. ATKINSON, M.B., D.P.H.

Assistant School Medical Officers:

P. VIEYRA, M.D., D.P.H.

DORIS M. LANGLEY, M.B., D.P.H.

M. K. ROSE, M.B., CH.B., D.P.H. (left 1/2/51)

ROXY GLOSSOP, M.B.

JOAN N. LEEDHAM, M.B.

P. PRATT, M.B.

J. BRECKENRIDGE, M.B. } Part-time

Specialist Officers:

Ophthalmic Surgeon: JOHN BENSON, F.R.C.S.

Orthopaedic Surgeon: A. NAYLOR, CH.M., M.SC., F.R.C.S.

School Dental Surgeons:

H. V. MORRELL, L.D.S., R.F.P.S. (Glas.)

S. HALL, L.D.S. (Liv.)

Physiotherapists:

Miss K. HUTTON, Central School Clinic

Miss E. M. MORRIS }
Miss V. M. CRIBB } Lister Lane P.H. School

School Nurses:

S. COULTHARD, K. HEINEMAN, D. O'CONNOR (left 31/5/51), C. M. HAMILTON, F. A. DAY, M. KAY, M. VAN SWANENBERG, B. SHIRES (left 31/1/51), M. GOLDMAN, J. E. DAVIES (left 28/2/51), J. E. HUNT (left 31/3/51), E. M. HEWITT;
M. CARTER, H. M. HUDDY (appointed 12/2/51), M. G. MUNRO (appointed 1/3/51), B. SUGDEN (appointed 4/5/51), J. B. WILSON (appointed 4/5/51)

Speech Therapists:

Miss M. AYRTON

Mr. F. BROOK (Part-time)

Chiropodist:

Mr. W. DALBY (Part-time)

Dental Attendant:

Miss J. STIRK

Child Guidance Clinic:

Psychiatrist: H. EDELSTON, M.B., D.P.M.

Educational Psychologist: Mrs. B. BROOK, B.A.

Psychiatric Social Workers: Miss PICKERING (left Oct. 1951)

Miss HEYWORTH (appointed Oct. 1951)

School Health Service

V. H. ATKINSON, M.B., D.P.H., *Senior Assistant School Medical Officer*

Co-ordination. The School Medical Officer is also Medical Officer of Health and the closest co-operation exists between all branches of the medical staff dealing with childhood. For this purpose there is a Joint Health and Education Special Sub-Committee which deals with questions affecting the School Medical Department.

School Hygiene. On the occasion of each routine inspection of the children at the school the medical officer surveys and reports upon the hygienic conditions of the school.

The following table is an analysis of the hygienic conditions tabulated from the summary sheets which are completed by the medical officers at the close of each school inspection:—

Items in Schools reported on							Conditions Found	
							County Schools Inspected	Voluntary Schools Inspected
							104	55
1.	Surroundings:	Open	..	..	..	..	67	28
		Congested	..	..	..	..	37	27
2.	Ventilation:	Natural	..	..	Satisfactory ..	..	82	45
					Unsatisfactory	..	7	10
		Artificial	..	..	Satisfactory ..	..	25	6
					Unsatisfactory	..	9	2
3.	Lighting:	Natural	..	..	Satisfactory ..	..	95	51
					Unsatisfactory	..	9	4
		Artificial	..	..	Satisfactory ..	..	75	44
					Unsatisfactory	..	29	6
4.	Heating	.. .. .	..	..	Satisfactory ..	..	84	51
					Unsatisfactory	..	20	4
5.	Furniture							
	(a) Desks:	Old-fashioned	..	..	Satisfactory ..	..	35	19
					Unsatisfactory	..	14	9
		Modern	..	..	Satisfactory ..	..	54	27
					Unsatisfactory	..	1	—
	(b) Blackboards	.. .. .	..	..	Satisfactory ..	..	95	55
					Unsatisfactory	..	9	—
6.	Water supply							
	(a) Washing (towels, etc.)	.. .. .	..	..	Adequate ..	..	77	46
					Inadequate ..	..	27	9
	(b) Drinking cups	.. .. .	..	..	Sufficient ..	..	74	45
					Insufficient ..	..	30	10
7.	Cloakroom							
	(a) Condition	.. .. .	..	..	Satisfactory ..	..	86	38
					Unsatisfactory	..	18	17
	(b) Arrangements for drying clothes, etc.	.. .. .	..	..	Present ..	..	35	24
					Absent ..	..	69	31
8.	Walls and floors							
	Condition and cleanliness				Satisfactory ..	..	61	36
					Unsatisfactory	..	43	19
9.	Sanitary conveniences							
	(a) Lavatories	.. .. .	..	..	Satisfactory ..	..	53	9
					Unsatisfactory	..	38	21
					Satisfactory but insufficient ..	..	3	4
	(b) W.C.'s	.. .. .	..	..	Satisfactory ..	..	58	31
					Unsatisfactory	..	37	18
					Satisfactory but insufficient ..	..	5	6
	(c) Urinals	.. .. .	..	..	Satisfactory ..	..	55	33
					Unsatisfactory	..	30	16
					Satisfactory but insufficient ..	..	3	1
					Hand flush unsatisfactory ..	..	2	—
10.	Playgrounds	.. .. .	..	..	Satisfactory ..	..	73	23
					Satisfactory but inadequate ..	..	6	12
					Unsatisfactory	..	25	21

School Health Service

The Joint Health and Education Special Sub-Committee reviewed progress once a month when questions of development were considered.

There was a short outbreak of dysentery affecting children attending day nurseries; also an epidemic of paratyphoid fever at a girls' grammar school. Both were promptly brought under control by the Public Health Department by measures described elsewhere.

Connected with the continuous medical inspection and treatment schemes three significant matters are mentioned initially—our newest Special School, changing status of Linton Camp and anti-tuberculosis trials.

Langley Residential School

At Baildon, five miles from the City, an imposing mansion, surrounding grounds and well-cultivated gardens were bought by the Bradford Education Authority, approved by the Ministry, altered where necessary by the City Architect's Department, and equipped as Langley Residential School for 29 pupils handicapped by rheumatism and heart diseases. When furnished the premises were viewed by a party of interested parents who travelled by a chartered bus. Miss Suggett was appointed Matron in advance of other staff. The 10 children first admitted on 10th May, 1951, were largely drawn from Lister Lane Day School; less chronic patients were received later from hospitals or direct from their own homes. At a large gathering of committee members and guests the ceremonial opening was performed in June by Dr. J. J. Buchan.

Candidates recommended for admittance were examined and selected by Dr. Atkinson. When resident, their individual treatment and graduated exercises were supervised by Dr. R. L. Langley, Consultant Paediatrician, who visited twice weekly, and by Dr. R. Glossop, Assistant School Medical Officer, who visited three days per week. Equipment included an ultra-violet ray lamp.

Some pupils were fit for full-time schooling, some part-time, and others for appropriate bed-side instruction. After formal lessons by 2 trained teachers, varied quiet occupations and entertainments were organised by Matron and by the 5 nurses. Boy Scout and Girl Guide troops were formed and talkie films were shown on the premises. The predominating note was freedom from institutional rigidity. Features of the happy atmosphere were the children's easy approach to staff, birthday parties and concerts to which parents were invited. Selected children helped in the kitchen and garden under supervision. Bed patients were limited to such pastimes as reading, needlework and jig-saw puzzles. During warm weather they were nursed out of doors. Pets included 7 rabbits, 4 gold fish, 2 tortoises and 1 cat. The eagerly anticipated parents' visits were facilitated by special buses, and made more sociable by refreshments.

The children's health improved markedly; there were steady gains in weight and more luxuriant hair growth was gratifying to the girls.

Linton School

Linton Camp began as an evacuation centre in July 1940, when 228 children, 12 teachers and Nurse O'Connor were transferred from Bradford. After hostilities, the establishment became a residential recovery school for delicate and maladjusted pupils, as authorised by Section 53 of the Education Act, 1944. Unfortunately, some of the deserving cases had to be withdrawn because their parents did not make regular contributions to maintenance, despite generous interpretation of a scale. This economic difficulty ceases on 1st April, 1952, when the devoted work of all concerned will be rewarded by Linton being given official recognition as a residential special school. Subsequently it will be administered under Section 9 (5) of the Education Act, 1944. Among recommended improvements are the replacement of double-tiered beds by single beds and reduction of accommodation to 120 places.

Tuberculosis

During the year Bradford children approaching school leaving age participated in an extensive controlled trial of a vaccine against tuberculosis. Dr. G. Lindsay, of the Medical Research Council, was in charge. The need for this investigation can be appreciated from the fact that the vast majority of deaths from this dread disease occur before the age of fifty, and that over 40 per cent of fifteen-year-olds have already had some infection—not necessarily notifiable.

All children concerned in the scheme had an initial examination. Some of those who showed by negative reaction to a skin test that they had never had any tuberculous infection were vaccinated; other negative reactors were not vaccinated. The vaccine contains a modified germ, non-virulent to human subjects. Injection of a small amount causes a harmless reaction which may be sufficient to alert the body defences against a later infection by a virulent type of the germ. After leaving school the children will be re-examined yearly, when the number of tuberculous cases which develop in each group will be compared. At the end of three years it can be decided if any appreciable protection has been conferred on the vaccinated group.

Other long-term measures recommended for control of tuberculosis include:-

- (a) Separation of babies from tuberculous mothers.
- (b) Provision of X-ray facilities for searching for active but unknown cases. Most effective means at present is Mass Radiography, which is daily picking out cases of active tuberculosis, who are circulating the germs of tuberculosis.
- (c) Isolation and treatment of the active case as soon as possible after diagnosis.
- (d) Provision of X-ray and other facilities for contacts of cases and for all other highly susceptible groups of people.

- (e) Pasteurisation of milk and milk products and the elimination of tuberculosis among dairy cattle.
- (f) Improvement of the habits of personal hygiene and the living conditions of the under-privileged.
- (g) Education of the public to the dangers of the disease, to the modes of spread, and to the danger of exposure and infection in childhood and early adult life.

Health Education

Talks to parent-teacher associations were given by Drs. J. N. Leedham and V. H. Atkinson. The latter gave an address to the Bradford Rotary Club. Nurse Day spoke to parents' meetings on School Hygiene, First Aid, Infectious Diseases, Prevention of Accidents, and Home Nursing.

Treatment of Warts and Enuresis

This was undertaken by Dr. J. N. Leedham at Lapage Street Clinic to help reduce hospital waiting lists.

Warts

A total of 104 children were treated for warts. Of these 3 were referred back to the Royal Infirmary; 254 actual warts were scooped with Valkman's Spoon under local anaesthesia, and 81 warts had treatment by carbon dioxide snow.

Enuresis

Persistent enuretics and their parents attended Lapage Street Clinic at monthly intervals, and each child was persuaded to note in a calendar the number of wet and dry nights during the month. Mild sedatives were given when necessary. The majority of cases had more than half the nights dry after one month's attention; 11 were cured; 2 were referred to Mr. MacAlister at the Children's Hospital because of lack of improvement; 3 were referred to the Child Guidance Clinic because of behaviour problems. Several patients after partial improvement failed to continue treatment despite enquiries.

Medical Inspection

During the year 1951 the School Health Service continued its effort to maintain and improve the welfare of Bradford children. The basis of activities was the annual inspection of four age groups—entrants to the infant schools, nine-year-olds in the primary department, thirteen-year-olds in the secondary modern schools and all children over twelve in the grammar schools. All winners of scholarships were examined as soon as possible after their entry into grammar or central schools, together with all children transferred to the above schools from similar schools in other areas.

As most schools are still without reserved accommodation for medical use, we must appreciate the readiness with which the staff room or classroom is placed at our disposal, and many other examples of cheerful co-operation by head teachers and assistants. Nothing is more helpful than the presence of a teacher at inspections, when defects can be considered jointly and any necessary modification of a child's curriculum arranged at once. Many children, especially in infant and primary schools, were accompanied by their parents, who valued the time-saving merits of an appointment notifying system. They showed an increasing willingness to accept advice and carry out suggested treatment. These agreeable circumstances were reflected in the trusting participation of even the youngest examinee.

The general standard of health was good, though variations according to income level were detectable; the benefits derived from school meals, milk and supplementary foods being most evident in the poorer districts. Very often the desirability of earlier bedtime needed to be stressed. Many cases of poor posture and slight flat foot proved amenable to attention in the school gymnasia without reference to our professional physiotherapist, and it is hoped that such facilities for the improvement of muscle tone will soon be available in all primary and secondary schools. Major deformities, active tuberculosis and other

gross lesions were rarely encountered. The incidence of visual defects justified comprehensive sight testing as soon as possible. Co-operation between teacher and medical personnel resulted in the detection of squint or other eye disease at a very early date in the child's school life.

Every school had a periodic inspection during the twelve months in accordance with the Ministry's regulations. Most serious defects had been recognised before the children reached school age. On admittance to school, all major defects seen by the teachers are notified to the medical officer, who examines the children at once. A census of all children in the City of school age is taken annually by the school attendance officers. Children who have reached five years of age whose names are not on any school register are reported to the School Medical Officer, who has each case either medically examined at the clinic or obtains satisfactory evidence that the child is not fit to attend school. Many of these cases are treated at school clinics or hospitals.

The School Health Service is responsible for approximately 40,000 children of school age, including nursery school children between the ages of two and five.

Medical inspections are carried out at regular and frequent intervals and the presence and full co-operation of the parents is requested on these occasions. The School Medical Officer keeps a close watch on the child's physical and mental development throughout his school career, aided by close liaison with the head teacher. Facilities for examination and treatment are available at school clinics situated in Manor Row, Edmund Street, Green Lane, Lapage Street, and Spring Bank Place, but medicines and domiciliary treatment are not included. Clinic treatment is provided free for children of school age suffering from skin, visual, hearing, postural, dental, speech, emotional and other defects; handicapped pupils are ascertained who need modified education in special schools.

Arrangements for Treatment

(a)	Minor ailments	..	School Clinics.
(b)	Tonsils and adenoids (operations)	.. ..	The Royal Eye and Ear Hospital.
(c)	Tuberculosis	.. ..	Chest Clinic and Grassington Sanatorium.
(d)	Skin disease	.. ..	School Clinics, Royal Infirmary, Children's Hospital and St. Luke's Hospital.
(e)	External eye disease	..	School Clinics, Ophthalmic Clinic (Manor Row), and the Royal Eye and Ear Hospital.
(f)	Vision	.. ..	School Clinics, Ophthalmic Clinic (Manor Row).
(g)	Ear disease and hearing		School Clinic and Ear Hospital.
(h)	Dental defects	.. ..	Central School Clinic.
(i)	Crippling defects and orthopaedic	.. ..	Manor Row Clinic, School for Handicapped Pupils and St. Luke's Hospital.

Attendances made by children at the school clinics during the year 1951:-

To see the doctor	..	..	..	..	..	..	7,315
Minor ailments	..	..	..	..	..	..	31,973
Eye specialist	..	..	..	..	..	..	365
Speech therapist	..	..	..	..	..	..	1,888
Chiropodist	..	..	..	..	..	..	713
Immunisation	..	..	..	..	..	..	636
Dental treatment	..	..	..	..	..	..	11,212
Total	..	..					<u>54,102</u>

Number of children recommended for admission to:-

School for Physically Handicapped Pupils (Lister Lane)	27
School for Educationally Sub-normal Pupils (McMillan)	43
School for Deaf and Partially Deaf Pupils (Odsal House)	4
School for Partially Sighted Pupils (Daisy Hill)	20
Langley Residential School for Handicapped Pupils ..	28

Reported to Mental Health Committee for:-

Occupation Centre	..	..	..	..	..	..	25
Certification as mentally defectives	..	..	..				5
Institutional care	..	..	..	..	..	..	4

Special Educational Treatment

At 1st December, 1951, there were 22 children accommodated in institutions *not* maintained by the Authority.

These are classified as follows:-

	Boys	Girls
Blind	5	2
Deaf	2	1
Physically handicapped	1	1
Educationally sub-normal	—	3
Diabetic	1	—
Maladjusted	—	1
Epileptic	3	—
Blind and educationally sub-normal	1	—
Physically handicapped and educationally sub-normal	—	1

The following cases were awaiting admission to special schools not maintained by the Authority on 31st December, 1951:-

- 1 blind boy
- 2 diabetic girls
- 2 physically handicapped boys
- 1 blind educationally sub-normal boy

Analysis of Cases seen by Mr. Benson, Ophthalmic Surgeon, at Manor Row Clinic

	Children of school age	Pre-school children	Total
Errors of refraction	86	3	89
Squint	205	71	276
Other defects	16	6	22
Total			387
Referred for hospital treatment	49	4	
Referred Partially Sighted School	1	1	

During the course of the year Mr. Benson examined all the children on register at the Daisy Hill Partially Sighted School and prescribed new glasses for 50 children.

Diphtheria Immunisation

Total number of school children injected with diphtheria prophylactic at the school clinics or in schools during the year 1951:-

Age	Immunisation Completed										Total
	2	3	4	5	6	7	8	9	10	11	
4	35	64	358	273	113	22	3	3	2	877	
Age	Reinforcing Dose										Total
	3	4	5	6	7	8	9	10	11		
40	124	971	939	527	138	19	4	1	2,763		

A number of pre-school children not attending nurseries came with brothers or sisters and were injected at the same time.

Children's Feet

During the year, 191 children had free chiropody at the Central Clinic by Mr. Dalby. Treatment was given on 50 sessions, each attended by 15 patients. There were 713 attendances altogether, each child making on an average 4 visits before discharge. Approximately 80 per cent of the children had verrucae; possibly a hormone factor accounts for the coincidence that most of these patients were approaching puberty. Next commonest were pronated feet. Incorrect posture was often the cause and parents were advised accordingly.

Though very few children complained of any symptoms, it was estimated that 25 per cent had defects which, if left untreated, were likely to cause disability in adult years.

Infectious Diseases

Instructions are issued to head teachers in all schools in a "Vade Mecum concerning Infectious Diseases." No scholar or teacher shall attend school while suffering from any disease regarded as infectious or contagious. A teacher who suspects that any scholar in school is suffering from any infectious or contagious disease shall at once report to the head teacher who, if satisfied that there are reasonable grounds for suspicion, shall temporarily exclude from school the affected child or children, report the reason for exclusion to the parent, and notify the School Medical Officer.

In all cases that warrant enquiry a nurse is sent to the school to examine the children, take throat, nose or ear swabs where deemed advisable and carry out any other precautionary measures that may be necessary, such as excluding children suspected of the disease, etc. By this method, in cases of diphtheria or scarlet fever, the cause of the spread of infection is often found. In some cases, the school is also visited by the Assistant School Medical Officer. During the year 1 death from diphtheria occurred in a child aged four years who was not immunised. This was the City's first fatal case since February 1949.

Notifiable infectious diseases are reported to the Medical Officer of Health by assistant school medical officers and private practitioners. All cases so noted are visited by a health visitor or sanitary inspector who gives advice to parents and guardians of children respecting the care of the patient and the welfare of those in contact with the disease, and takes steps where necessary for the removal of children to hospital. The health visitor in some cases also issues a notice excluding the patient and those in contact with him from school. In cases of certain fevers visited by the sanitary inspector, exclusion notices are also issued by the Medical Officer of Health for children suffering, or children who may have been in contact with those suffering, from the disease.

Co-operation of Parents, Teachers, School Attendance Officers and Voluntary Bodies

The influence of the head teachers on the parents helps the attendance of children at the school clinics for both medical and dental purposes, and the teachers' special knowledge of the children and their environment is of great value to the school medical staff.

There is as much co-operation as possible between the school attendance department and the school medical department. In cases of children requiring medical attention the school attendance officer can do much to persuade the parent to visit the school clinic or private practitioner. Persistent absence from school is investigated and assistance given in tracing children who may have changed their school or address.

The help given by the Cinderella Club in providing needy children with a holiday at the Hest Bank Home, Morecambe, has been much appreciated. Each child is examined by a member of the school medical staff prior to travelling.

The Victoria Convalescent Fund has also assisted the School Medical Service in helping cases referred to them by the school medical officers and also by sending children to holiday and convalescent homes.

During the year 44 cases of neglected children have been referred to the inspectors of the N.S.P.C.C. with beneficial results to the children concerned. The inspectors have also visited cases where the parents have refused to obtain necessary medical attention prescribed by the School Medical Officer; a help which is very much appreciated.

Routine Medical Inspections

- (a) General Condition. The general condition of the children examined at the routine medical inspections has been assessed in three grades as follows:-

Age Group	Number Inspected		Good A		Fair B		Poor C	
			No.	%	No.	%	No.	%
Entrants	3,778	1,304	34.5	2,449	64.8	25	0.7	
Second age group ..	3,150	1,099	34.9	2,037	64.7	14	0.4	
Third age group ..	2,435	1,068	43.9	1,354	55.6	13	0.5	
other periodic inspections	6,522	3,367	51.7	3,135	48.0	20	0.3	
Total prescribed groups	15,885	6,838	43.0	8,975	56.6	72	0.5	
Nursery schools ..	1,465	548	37.4	899	61.4	18	1.2	
Totals	17,350	7,386	40.2	9,874	59.0	90	0.8	

- (b) Diseases of the Skin. At routine medical inspections 940 children were found with skin diseases; 595 were referred for treatment and 345 kept under observation. During the year 852 cases of skin disease were treated at the school clinics.

- (c) Visual Defects and External Eye Disease. Of the 2,122 children who were found with defective vision at the periodic medical inspections, 875 required treatment and 1,247 were kept under observation (the latter consisting chiefly of pupils already wearing suitable spectacles), 235 cases of squint and 159 cases of other external eye disease were referred for treatment, 192 cases of squint and 45 other cases of eye disease were kept under observation.

At special inspections 818 cases of defective vision needed treatment; 583 cases observation only.

During the year 1,628 cases of visual defect and eye disease including squint, were dealt with by the Local Authority and spectacles were prescribed for 675 children.

- (d) Ear Disease and Hearing at Periodic Inspections. 231 cases of ear disease or defective hearing were found; 128 required treatment, including 40 cases of otitis media.

At special inspections 162 cases were found; 131 being referred for treatment.

- (e) Nose and Throat Defects. At routine medical inspections 2,177 children were found to have nose and throat defects; 1,076 requiring treatment. Out of 298 discovered at special inspections, 265 were referred for treatment and 33 kept under observation. A total of 1,694 cases of nose and throat defect received operative treatment.

- (f) Defective Speech. At the routine inspections 83 cases were found and 41 cases at special inspections. In the first group 41 cases required treatment. In the second group 32 cases; the remaining children being kept under observation.

- (g) Cervical Glands (non-tubercular). At routine medical inspections 306 children were found to have enlarged cervical glands; 65

required treatment and 241 observation only. Out of 18 cases found at special inspections, 14 were referred for treatment.

(h) Heart and Circulatory Diseases. Of the 695 cases who were found during the year at periodic inspections, 409 children were referred for treatment. At special inspections 106 cases were discovered. The number does not include children at the Lister Lane School for Physically Handicapped Pupils.

(i) Lungs. Of the 432 children who were found at routine inspections to be suffering from bronchitis, asthma and other non-tubercular lung disease, 200 required treatment.

At special inspections 175 cases were found; 115 being referred for treatment.

(j) Orthopaedic Defects. The number of children suffering from postural defects, flat-foot and other deformities at routine and special inspections is shown in the following table:-

Defect	Routine Inspections Number of Defects		Special Inspections Number of Defects	
	Requiring Treatment	For Observation	Requiring Treatment	For Observation
Posture	355	148	52	—
Flat-foot	465	97	121	13
Other	280	431	33	25

(k) Nervous System. At routine inspections 353 children were found with nervous conditions; 216 being referred for treatment.

At special inspections 59 cases were found.

The above numbers include 32 cases of epilepsy—19 in the first group; 13 in the second group.

(l) Miscellaneous. At periodic inspections 290 children were found to be suffering from other defects and diseases. Of these 213 needed treatment.

At special inspections 1,278 cases were found; 853 being referred for treatment.

Following up. The number of defects discovered by the nurses in the schools during 1951 was 7,870.

(a) Record of visits for 1951:-

1. Visits to schools	704
2. Visits to homes	96
3. Examinations	70,123

(b) Defects discovered:-

1. Infestation (head)	5,896
2. Uncleanliness (body)	239
3. Ringworm	2
4. Scabies	2
5. Impetigo	109
6. External eye disease	115
7. Defective vision	688
8. Squint	113
9. Running ears	101
10. Infectious disease	6
11. Other conditions	599

No case of malnutrition was found in school at any hygiene inspection during 1951.

Physiotherapy Report

A total of 264 children attended the school clinic for remedial exercises which was 42 more than in the previous year. Of these, 138 children came from primary schools and 126 children came from grammar schools.

Number of attendances:-

Number of attendances—Boys ..	2,332
Girls ..	2,663
Total ..	<u>4,995</u>

Classification of cases:-

Foot deformities	146
Kyphosis	69
Asthma	18
Scoliosis	6
Rickets	11
Chest deformities	5
Hemiplegia	1
Torticollis	1
Post-operation tonsils and adenoids	7
Cases discharged cured	94
Cases discharged improved ..	48
Cases withdrawn from treatment by parents	15
Cases referred for hospital treat- ment	4
Cases leaving school before com- pletion of treatment	15
Cases left district	1
Cases carried forward	87
Total	<u>264</u>

Ultra-Violet Ray Therapy

Ultra-violet ray treatment was given at the Central School Clinic, Manor Row, to 665 children; 467 cases were completed, but 38 cases for various reasons failed to finish the course and 160 cases were carried forward to 1952.

A short exposure was given at the first attendance, and this increased gradually to a maximum of five minutes at a distance of four feet from the Centrosol lamp.

The number of treatments given during 1951 was 9,472; an increase of 1,518 over the previous year.

CASES TREATED BY ARTIFICIAL SUNLIGHT, 1951

Defects	Number of Children	Average Number of Weeks	Mini- mum Number of Weeks	Maxi- mum Number of Weeks	Number of Exposures					Signs of Improvement			Result of Treatment					
					Minutes					Temper- ament	Energy	Sleep	Nutri- tion	Haema- globin	Condi- tion Cleared	Condi- tion Improved Much	No Change Slight	
					1	2	3	4	5									
Anaemia ..	75	10.5	7.5	12.0	78	77	85	607	760	16	61	43	32	75	51	23	1	—
Asthma ..	22	10.0	8.0	12.5	22	22	28	205	121	6	17	7	10	21	6	10	6	—
Anorexia ..	21	9.5	5.5	11.5	22	20	24	280	100	2	16	12	9	21	14	6	1	—
Bronchitis ..	42	10.0	8.5	12.5	43	44	48	431	274	9	32	23	12	42	19	21	2	—
Bronchial catarrh ..	37	10.0	7.0	13.0	35	36	42	355	316	7	31	25	16	35	26	11	—	—
Cervical adenitis ..	9	10.0	9.0	12.0	9	9	11	120	32	5	5	5	5	9	4	5	—	—
Nerves.. ..	18	10.0	8.5	11.5	19	19	21	130	162	10	12	11	7	18	12	6	—	—
Debility ..	79	10.0	6.0	13.5	79	81	86	618	723	17	57	55	36	79	58	20	—	1
Malnutrition ..	5	9.5	7.5	11.5	5	6	4	21	57	1	3	2	4	5	1	4	—	5
Nasal catarrh..	7	10.0	9.5	11.5	7	6	8	37	86	—	5	5	1	6	3	4	—	—
Rheumatism ..	3	11.0	8.0	11.5	3	3	4	41	12	2	2	1	—	3	1	2	—	—
Rickets ..	1	10.0	10.0	10.0	1	1	2	17	—	—	1	—	—	1	—	1	—	—
Frequent colds ..	21	10.0	8.5	11.5	22	23	20	304	15	2	11	10	11	20	13	8	—	—
Skin diseases ..	22	10.0	7.5	12.5	20	20	22	228	117	2	15	13	10	20	13	7	1	—
Other defects ..	105	10.0	6.5	12.5	107	108	113	712	1066	26	83	65	50	104	62	38	5	—

Defect	Number of Children	Mini- mum Number of Weeks	Maxi- mum Number of Weeks	Average Number of Weeks	Number of Exposures					Reason for Discontinuing Treatment					
					Minutes					Default- ed	Left the City	Parents Declined Further Treat- ment	Trans- ferred to Own Doctor		
					1	2	3	4	5						
Anaemia	..	..	5	1.5	6.0	4.5	5	5	5	17	12	4	—	1	—
Anorexia	..	..	4	2.5	5.5	4.0	4	4	4	19	2	1	—	—	—
Bronchitis	..	..	2	4.0	6.0	5.0	2	2	2	3	7	6	2	—	—
Bronchial catarrh	..	..	1	—	—	6.5	1	1	1	10	—	1	—	—	—
Debility	..	..	1	—	—	2.5	1	2	1	—	1	1	—	—	—
Overstrain	..	..	1	—	—	2.5	1	1	1	1	1	1	—	—	—
Rheumatism	..	..	1	—	—	4.5	1	—	1	1	6	1	—	—	—
Skin disease	..	..	1	—	—	5.5	1	1	1	1	7	1	—	—	—
Frequent colds	..	..	7	2.5	6.5	4.5	7	7	8	40	—	6	—	1	—
Other diseases..	..	..	15	1.5	6.0	3.5	15	15	13	32	24	9	1	4	1

Margaret McMillan School for Educationally Sub-normal Children

There were 185 day pupils on roll in January 1951 and 194 in December. At Easter the residential section had to be closed, and, owing to lack of staff, no new admissions were possible after the summer vacation. Throughout the City there must be another 200 seriously retarded children who ought to be ascertained and admitted to an educationally sub-normal special school but for whom there is no accommodation at present.

When Thorngarth Residential Hostel re-opens for pupils whose parents cannot provide satisfactory domestic circumstances it is unlikely that candidates from foster homes can be accepted.

During the City's Education Week the McMillan School held an "Open Day" on 20th June, when each class exhibited its work, together with dancing and physical training displays by the seniors and dramatic sketches by the juniors.

As usual gardening and other practical work were necessarily emphasised. In September the school made a very creditable contribution of vegetables and flowers to an exhibition held in the Mechanics' Institute.

Trips of any kind appeal vividly to these simple youngsters; keenly enjoyed were visits to Bridlington, to Chipperfield's Circus, and to a budgerigar show, where their own pet bird won fourth prize.

Lister Lane Special School for Physically Handicapped Pupils

At the beginning of 1951 there were 180 children on roll suffering from the following:— paralysees, osteomyelitis, spina bifida, tuberculosis of bones and joints, talipes, amputations, Perthe's disease, cardiac disease, haemophilia, chorea and asthma.

Owing to improvement in health, 17 children were transferred to ordinary schools; another 10 were well enough at fifteen years to com-

mence work, whilst 9 left after completing full time at school. Five pupils left the district and 3 died. In June and October the numbers were further reduced by the transference of 20 children, who were suffering from valvular disease of the heart, to the newly-opened Langley Residential School at Baildon.

The 2 orthopædic surgeons together made 23 visits and held 307 consultations. Fifteen children had operations which greatly minimised their deformity, and in most cases improved their gait. The staff at the hospital fracture clinics and the almoners helped in the provision of plasters, braces and splints immediately they were required. The 2 physiotherapists and the nurse effected much improvement in many of the younger children, who became less ill-controlled in their movements.

The curriculum has been as similar to that of an ordinary school as possible. Three girls entered for the Selection Examination for Secondary Education and all were successful—1 of them gaining a grammar school place.

Part-time teachers took vocational classes in commerce, cookery, domestic science and boot repairing. Special attention was paid to needlework for the girls. Gardening was a favourite occupation amongst the boys, who proudly exhibited produce at the Schools' Gardening Exhibition in September.

The Music Inspector kindly arranged for a party of instrumentalists to visit each term to give a concert of orchestral music. These visits were a great success, and the seniors were inspired to take a greater interest in music.

The teachers managed to raise sufficient money to take the nursery and infant children into the Yorkshire Dales to visit a farm and to play in the fields. The seniors had a wonderful trip to Morecambe in June, and were delighted to see the sea—some for the first time in their lives.

Daisy Hill Partially Sighted School

	Boys	Girls	Total
Children on roll, January 1951	40	52	92
Children admitted since January 1951 ..	7	6	13
Children discharged since January 1951 ..	5	12	17
Children on roll, December 1951	42	46	88

The school work continued to make steady progress; the teachers, by individual methods, strive to reach the standard of ordinary schools.

In order to teach the older boys and girls to accept responsibilities the "prefect" system was introduced. Each boy or girl in the top class becomes a prefect for one week and is responsible for carrying out duties which normally belong to the head teacher, e.g., collection of dinner money, distribution of bus tokens, and balancing of accounts at the end of the week.

A considerable number of new children's desks have been received during the year to replace the old "Myope" boards, which were in a very unsatisfactory condition. The desks are similar to those used in the ordinary schools. To correct bad posture certain children use book-rests and loose black boards to which paper is clipped.

The electric lighting in one room was improved, and it is hoped that the foot candle intensity throughout the rest of the school will soon be brought to the required standard.

5 boys and 12 girls were discharged.

1 boy returned to an ordinary school.

1 boy left the city.

3 boys were discharged for full-time employment during their sixteenth year.

1 girl left the city.

2 girls returned to ordinary schools.

9 girls were discharged for full-time employment at sixteen years of age.

Odsal House School for the Deaf

Number on roll in January—78; in December—86.

5 classes of Grade III Deaf Children.

3 classes of IIB Partially Deaf Children.

The number of children made it necessary to appoint an additional teacher, Miss M. J. Walker, in January 1951. The outstanding event of the year was the transfer of the school from Bolton Royd to Odsal House in September. The new premises provide much more room and can be adapted to cater for children from surrounding areas. Since the school was housed at Odsal a number of very young children have been admitted, and a full nursery class of deaf children under five was formed.

More than 80 per cent of the children have been provided with individual hearing aids, which are worn continuously. The older girls made special pockets which can be slung underneath their tunics; a harness for the use of the younger children was designed and is being made in needlework class. Throughout the year the aids were repaired and serviced with the utmost speed by the very obliging staff at the Hearing Aid Centre of the Royal Eye and Ear Hospital. The class amplifier has been rewired following its removal to Odsal House, and continues to give excellent service. The partially deaf classes have followed selected series of the Schools' Broadcasting Programme with conspicuous success.

The Festival year has been outstanding. In April 34 children from the senior classes spent four days in London. They stayed at youth hostels, and had a very enjoyable sight-seeing tour. In July the senior classes had a day at Liverpool, and gained much valuable knowledge about shipping. The school had a full programme during Education Week; many parents and friends took advantage of the opportunity to see the work of the school. We were honoured on that occasion by a visit from the Lord Mayor and the Lady Mayoress.

The annual school events again had the very helpful co-operation of the parents. The swimming gala in July and the school pantomime in December were enjoyed both by the parents and by the children. The Parents' Association continued to grow, and had a series of interesting lectures as well as social activities. Miss Molly Sifton, of the Manchester University staff, received a very warm welcome when she addressed the parents.

There have been numerous parties of visiting students, including teachers from the Gold Coast. Two members of the staff, Miss C. M. Hall and Miss M. K. Tait, were both successful in the Diploma Examination of the National College of Teachers of the Deaf in March.

David Laban gained entrance to the Mary Hare Grammar School for the Deaf at Newbury, and started there in September. He proved such an outstanding pupil that he was transferred to a Bradford Secondary Grammar School.

Linton Residential Recovery School

The school remained open as usual all through the summer. The Christmas vacation was extended to permit renovation of premises. On 15th January, 1951, 121 pupils re-assembled. During the year 125 new ones were admitted. It was regretted that inability to pay maintenance charges caused many delicate children to be sent home before full benefit had been conferred; and it was hoped that financial restriction would soon be overcome. Many tributes were paid to Nurse D. O'Connor who resigned in June. She helped to open the Camp, and during the ensuing eleven years she gave untiringly of her skill to the community. Her devotion inspired implicit confidence, and will be affectionately remembered. Nurse J. Wilson was appointed as successor, and assistant Nurse Talbot continued to work in the Clinic and sleep in the main building.

A periodic inspection was completed by Dr. M. Langley in September. Dr. Wynn of Addingham attended weekly and was available in any

emergency. Mr. Morrell made 3 visits for dental treatment. During the year there was no infectious disease. The average number of cases treated daily by nurses was 36. The average number of patients kept in bed was 4. These included 3 cases of pneumonia, 3 of Vincent's Angina and 1 fractured leg. Seven children were moved to Bradford hospitals for surgical treatment. Asthma cases showed marked improvement; persistent enuretics again required much attention.

The staff at this establishment realise that children separated from their own families need father and mother substitutes as well as conventional teachers, and our 2 nurses fully participated in the general social welfare.

Lip Reading

From the many children referred to him because of suspected handicap the Senior Medical Officer collected a group suffering from various degrees of deafness but not so severe as to require transfer from ordinary schools. With the consent of their parents they attended the Central Clinic each Monday at 4.0 p.m. for an hour's class, kindly taken by a specialist teacher from Odsal. To develop visual compensation for auditory loss the lip reading lessons consisted of two parts—analysis of English phonetics, and synthetic practice with words, short phrases and longer sentences. By this method moderately deaf children, if intelligent, were enabled to retain correct speech and to maintain normal school progress.

Speech Therapy

During the year a total of 62 new cases were referred to Miss Ayrton from the maternity and child welfare clinics, school medical officers, private physicians and teachers of nursery, infant, primary, secondary and grammar schools. The total number treated was 106; their total attendances were 1,498; 14 cases were discharged with normal speech.

The disorders were grouped under five headings:-

- (a) Stammering
- (b) Irregular articulation
- (c) Retarded speech
- (d) Lispings
- (e) Faults of resonance, malformations.

The pre-school children generally presented delayed speech. In practically every case there was insufficient motivation for speech development in the home. The younger patients are when treatment is begun, the more easily are incorrect speech patterns adjusted.

All aspects and complications of speech disorders must be investigated and helped. During the year patients were referred to the following departments for concomitant treatment:-

1. Child guidance clinic
2. Hospitals
3. Orthodontic clinic
4. Physiotherapy
5. Intelligence testing
6. Audiometry
7. Convalescent home.

Several schools were visited to interview individual children and groups; on every occasion the teachers were fully co-operative.

Mr. F. Brook, L.C.S.T., was appointed part-time speech therapist during the year in order that some of the more serious cases awaiting the attention of the full-time therapist might be given treatment. The additional clinic has been in operation on a two-sessions-per-week basis since the beginning of April 1951.

Details of the treatment are as follows:-

Clinical sessions held	..	..	..	36
Patients' appointments	..	..	..	349
Parental interviews	..	..	..	38
Patients under treatment	..	..	..	35
Number adjusted and discharged	..	..	..	5
Aggregate absenteeism (%)	..	..	..	7

The number of cases satisfactorily closed during the year may seem very small unless it is noted that the new clinic did not come into operation until April and has had to deal with the more serious type of disorder. The number of discharges next year should afford a truer indication of the value of the treatment.

Absenteeism has been surprisingly low considering the inclement weather of 1951 and the number of very small children having to travel to the clinic.

In order to provide effective treatment to as many children as possible, patients have been formed into groups of not more than 3 whenever suitable arrangements could be made.

Prevention and the Age Factor

Publicity given to the need for prevention in preference to treatment is beginning to show results. Children of below school entrance age are being referred more frequently and with good results. The need for reference at the age of three or four years applies particularly to children who have a tendency to stammer and those with seriously delayed speech. There is a widely held but usually groundless belief that "children will outgrow stammering if it is ignored." True, the stammer symptom itself should be ignored but parents should seek advice immediately, in order that the cause of the stammer might be determined and removed where possible.

Treatment of Stammering

Most of the children attending for treatment are stammerers. Treatment for this distressing disorder is usually complex and often extends over a long period. Stammering is not a speech defect but an emotional disorder which expresses itself chiefly as a disturbance of speech. A

full investigation is made into every case before treatment commences. Many of the children have stammered for a year or more before being referred and the problem may have been complicated by faulty parental advice. The disorder is characterised by a variety of symptoms involving interruptions in the fluency of speech. In the older child this is prompted largely by the stammerer's anticipatory dread of speaking. Inferiority feelings often follow in the wake of the complaint.

Relaxation remains the chief instrument at our disposal. Good results cannot be expected unless this is practised for forty-five minute periods on a minimum of five days each week. Improvement largely depends on the ability and willingness of the child and his parents to co-operate. It is also important that the child should be happily adjusted in his school life in spite of his stammer. Close co-operation between school and clinic is necessary, and the speech therapist greatly appreciates the help already given in this direction by members of the teaching profession in Bradford.

By means of the International Conference and other professional channels, news of research work leading to the trial and adoption of improved methods of treatment is regularly received. Research is largely directed to finding new methods which may lead to greater and perhaps speedier relief for the large numbers of stammerers who continue to fill the speech clinics in many countries.

Child Guidance Clinic

The vacant position of psychiatric social worker was filled in October 1951 by Miss Heyworth, who had fourteen years' varied experience since being trained at Manchester University. When fully staffed the clinic was able to cope adequately with the demands on its service.

Summary of cases referred and examined.

From	Referred		Examined		Withdrawn	
	1950	1951	1950	1951	1950	1951
Head and class teachers	70	43	53	28	10	9
Parents and friends	34	26	32	20	1	4
School medical officers	22	33	19	26	1	4
Private doctors	15	18	15	16	—	1
Juvenile court and probation officers	9	16	8	14	1	1
Education Department	4	12	3	12	—	—
Children's Officer	10	8	9	8	1	1
N.S.P.C.C.	—	4	—	3	—	1
Maternity and Child Welfare Dept.	2	—	1	—	1	—
Speech therapist	2	3	2	3	—	—
Hospitals	1	4	1	4	—	—
Mental Health Services	—	1	—	1	—	—
Psychologist	9	6	7	4	2	—
Attendance officers	1	—	—	—	1	—
Police Department	1	—	—	—	—	—
Council of Social Service	—	1	—	—	—	—
Marriage Guidance Council.. ..	—	1	—	—	—	1
Special schools	—	1	—	1	—	—
Carried over from previous year ..	—	—	10	—	—	—
Totals ..	180	177	160	140	18	22

Classification of cases according to presenting symptom.

	1950	1951
Retardation	54	23
Nervous disorders.. ..	21	13
Aggressive and difficult behaviour ..	22	32
Stealing	16	42
Anti-social evasive behaviour	29	14
Habit disorders	20	16
Fears and anxieties	15	16
High school failure	2	2
Educational advice	—	3
Psycho-somatic	—	3
Organic	—	2
Sexual difficulties.. ..	—	4
Speech defect	—	5
Miscellaneous	1	2
	180	177

Though there was a moderate waiting list all urgent new cases were accorded priority. Those from the Juvenile Court were examined during the usual three weeks period of remand.

Several cases from hospitals were of a psycho-somatic nature, i.e. there were present 'physical' symptoms (a skin rash, or intermittent attacks of vomiting, etc.); the origin of which lay in psychological difficulties. This subject, the association of psychological conflict with physical symptoms, is of fairly recent development in medicine generally. It presents many features of unusual interest, and we expect to have more of these cases as time goes on.

The complex subject of juvenile delinquency was particularly prominent following a request by the Home Office in 1949 that local authorities should convene committees to study the problem. As Bradford's contribution Dr. Edelston wrote a book entitled "The Earliest Stages of Delinquency," which is now published by Livingstone.

Our educational psychologist and others agree that insufficient facilities exist for backward children. She has estimated that in Bradford there are 500 children needing special schooling of the McMillan type, whilst at present we are only catering for under 200. In addition there are at least another 500 children needing tutorial teaching. She would like to make a survey of all the children who obtain 70 minus in the scholarship examination at the age of eleven to see what special facilities are really needed. As a basis for a long-term policy she would suggest that instead of 8 or 9 scattered tutorial classes throughout the City we should have a centrally situated school for remedial teaching; a school with a mixed staff catering for a floating population of about 200 to 300 children. There are many children in the schools with normal intelligence who are backward because of illness, too many changes of school, poor social environment, or because of a neurotic character. She firmly believes that with the right sort of help, to include twelve months' special tuition in a tutorial class or school, they could be made fit to go back into the normal stream again.

A Probation Play Group was instituted to meet the difficulty of treating children on probation between the ages of nine and eleven. It was an experiment born of a growing realisation that for some children the act of reporting at regular intervals to a probation officer tended to become somewhat meaningless and unprogressive. These were the children whose conversation was usually monosyllabic, who apparently could not respond to a formal interview, and whose true characters were consequently difficult to assess. A play group, we felt, would give an opportunity of getting to know them better in an informal environment, where their behaviour was likely to give valuable insight to the observer.

After a period of trial and error four boys aged ten to eleven, settled down to a steady Monday after-school routine, and the play group is slowly establishing itself as an important, though small, part of supervising certain young offenders.

Perhaps the most encouraging sign of the group's success is its popularity. The boys are, if anything, more enthusiastic than when we first started. A tradition of fair play in general behaviour is slowly developing, and a failure to observe this by any member is quickly remedied by the others. One sees evidence that the boys have become group conscious, and are acquiring some sense of responsibility and loyalty.

From the Probation Officer's point of view, this alone indicates that the venture is worth while, but there have been other advantages. An easy, workable relationship with a youngster is inevitably fostered more quickly under these conditions. Opportunities for comment and discussion on anti-social behaviour occur naturally from time to time, and care for other people's property can be encouraged in using and looking after the equipment. Not least, one discovers what a child is really like.

It is early to assess the long-term value of the play group, but it seems reasonable to suggest that the experiment has been successful enough to merit being continued.

Dental Report

H. V. MORRELL, L.D.S., R.F.P.S. (Glas.), *School Dental Surgeon*

The number of children examined by the two dental officers in the schools during 1951 was 7,619. The number of special inspections at the Central Clinic was 9,097, making a total of 16,716. Of this number 12,282 were found to require treatment and 10,639 actually received treatment at the clinic. In all, 11,212 attendances were made for dental treatment. The inspection and treatment of defective teeth was carried out as in previous years; a little more than 1 session per week being allotted to each dental officer for inspection, thus leaving the maximum amount of time for operative work.

Dental inspections are carried out in the schools by the aid of probe and mirror. This method of inspection enables a large number of children to be dealt with in a session, and consequently disorganisation of the school work is reduced to a minimum, a fact very much appreciated by the head teachers.

During the year preventive work has been much curtailed owing to shortage of staff and the great desire of parents to seek dental treatment for their children. The dental officers have been kept fully employed in dealing with patients who come mostly for relief of pain. Local practitioners have been helpful in relieving the pressure of appointments for conservative treatment, and this has allowed the school dental officers to offer immediate treatment to all children in urgent need. During the year 9,097 urgent or "casual" cases were treated.

A brief summary of the work shows that 138 fillings were completed; 3,579 permanent teeth and 12,938 temporary teeth were extracted. Other operations, which numbered 650, included a variety of conditions—scaling and cleaning, treatment of gum conditions, silver nitrate treatment and dressings for haemorrhage. An anaesthetic is always used for the extraction of teeth and most of the extractions were carried out under general anaesthesia; nitrous oxide being administered in

124

7,077 cases. The remaining extractions were completed under local anaesthetics. Orthodontic treatment was carried out in selected cases; the most common irregularity being misplaced upper canine teeth. This condition was simply corrected, in many cases, by the judicious extraction of the upper premolar. Another common irregularity is the instanding central or lateral incisor. The services of the maternity and child welfare dental officer are much appreciated for his co-operation in fitting and adjusting simple mechanical appliances. The more difficult irregularities are referred to the local specialist.

The closest contact is maintained between the maternity and child welfare dental officer and the school service; many of the school children having been previously treated at the Maternity and Child Welfare Clinic.

During the year several cases have been referred to St. Luke's Hospital X-ray department. The expediency with which the skiagraphs and reports are to hand has been a great help in difficult cases. This dental department continues to meet a big need, and it is gratifying that so many parents show an active interest in the oral hygiene of their children.

Medical Inspection Returns

TABLE 1.

Medical inspection of pupils attending maintained primary and secondary schools (including special schools).

A. *Periodic Medical Inspections.*

Number of inspections in the prescribed groups:-

Entrants	..	..	..	..	3,778
Second age group	..	..	..	..	3,150
Third age group	..	..	..	..	2,435
Total					9,363
Number of other periodic inspections					6,522
Grand total					15,885

B. *Other Inspections.*

Number of special inspections	..	5,078
Number of re-inspections	..	7,315
Total	..	12,393

C. *Pupils found to Require Treatment.*

Number of individual pupils found at periodic medical inspection to require treatment (excluding dental diseases and infestation with vermin).

Group	For defective vision (excluding squint)	For any of the other conditions recorded in Table IIA.	Total individual pupils
Entrants	12	1,242	1,247
Second age group	213	775	928
Third age group	115	321	414
Total (prescribed groups) ..	340	2,338	2,589
Other periodic inspections ..	535	1,449	1,865
Grand total	875	3,787	4,454

TABLE 2.

A. Return of defects found by medical inspection in the year ended 31st December, 1951.

Defect Code No.	Defect or disease	Periodic Inspections No. of defects		Special Inspections No. of defects	
		Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
4.	Skin	595	345	355	28
5.	Eyes—(a) Vision ..	875	1,247	818	583
	(b) Squint ..	235	192	20	9
	(c) Other ..	159	45	57	9
6.	Ears—(a) Hearing ..	59	30	17	16
	(b) Otitis media ..	40	51	44	7
	(c) Other ..	29	22	70	8
7.	Nose and throat ..	1,076	1,101	265	33
8.	Speech	41	42	32	9
9.	Cervical glands ..	65	241	14	4
10.	Heart and circulation..	409	286	74	32
11.	Lungs	200	232	115	60
12.	Developmental				
	(a) Hernia	4	12	—	—
	(b) Other	57	60	—	—
13.	Orthopaedic				
	(a) Posture	355	148	52	—
	(b) Flat-foot	465	97	121	13
	(c) Other	280	431	33	25
14.	Nervous system				
	(a) Epilepsy	8	11	3	10
	(b) Other	208	126	27	19
15.	Psychological				
	(a) Development ..	16	25	11	133
	(b) Stability	21	36	—	—
16.	Other	213	77	853	425

B. Classification of the general condition of pupils inspected during the year in the age groups.

Age groups	Number of pupils Inspected	A. (good)		B. (fair)		C. (poor)	
		No.	%	No.	%	No.	%
Entrants	3,778	1,304	34.5	2,449	64.8	25	0.7
Second age group..	3,150	1,099	34.9	2,037	64.7	14	0.4
Third age group ..	2,435	1,068	43.9	1,354	55.6	13	0.5
Other periodic inspections	6,522	3,367	51.7	3,135	48.0	20	0.3
Total ..	15,885	6,838	43.0	8,975	56.6	72	0.5

TABLE 3.

Infestation with Vermin.—

i.	Total number of examinations in the schools by the school nurses or other authorised persons	70,123
ii.	Total number of individual pupils examined	34,106
iii.	Total number of individual pupils found to be infested ..	3,504
iv.	Number of individual pupils in respect of whom cleansing notices were issued (Section 54 (2) Education Act, 1944)	—
v.	Number of individual pupils in respect of whom cleansing orders were issued (Section (3) Education Act, 1944) ..	—

TABLE 4.

Treatment of pupils attending maintained primary and secondary schools (including special schools).

Group 1.—*Diseases of the Skin (excluding uncleanness).*

						Number of cases treated or under treatment during the year	
						By the Authority	Otherwise
Ringworm—	(i)	Scalp	..	..	..	2	—
	(ii)	Body	..	..	..	5	—
Scabies	..	..	..	..	..	14	—
Impetigo	..	..	..	..	..	157	—
Other skin diseases	..	..	..	..	..	674	—
Total						852	—

Group 2.—*Eye Diseases, Defective Vision and Squint.*

						Number of cases dealt with	
						By the Authority	Otherwise
External and other (excluding errors of refraction and squint)	..	..	..	..	..	604	16
Errors of refraction (including squint)	..	..	..	..	..	1,024	291
Total						1,628	307
Number of pupils for whom spectacles were:-							
(a)	Prescribed	..	..	..	..	675	222
(b)	Obtained	..	..	..	..	890	196

Group 3.—*Diseases and Defects of Ear, Nose and Throat.*

	Number of cases treated	
	By the Authority	Otherwise
Received operative treatment:—		
(a) for diseases of the ear	—	78
(b) for adenoids and chronic tonsilitis	—	1,474
(c) for other nose and throat conditions	—	220
Received other forms of treatment	906	—
Total ..	906	1,772

Group 4.—*Orthopaedic and Postural Defects.*

(a) Number treated as in-patients in hospitals	7	—
	Number of cases treated	
	By the Authority	Otherwise
(b) Number treated otherwise, e.g., in clinics or out-patient departments	211	—

Group 5.—*Child Guidance Treatment.*

	Number of cases treated	
	By the Authority	Otherwise
Number of pupils treated at the Child Guidance Clinic	169	—

Group 6.—*Speech Therapy.*

	Number of cases treated	
	By the Authority	Otherwise
Number of pupils treated by speech therapists	153	—

Group 7.—*Other treatment given*

	Number of cases treated	
	By the Authority	Otherwise
(a) Miscellaneous minor ailments	4,408	—
(b) Other:—		
1. Other defects and diseases	900	—
2. Chiroprody	191	—
Total ..	5,499	—

TABLE 5.

Dental inspection and treatment carried out by the authority.

1. Number of pupils inspected by the Authority's dental officers:-						
(a) Periodic age groups	..	..	..	..	..	7,619
(b) Specials	..	..	..	..	..	9,097
Total						16,716
2. Number found to require treatment						
						12,282
3. Number referred for treatment						
						12,282
4. Number actually treated						
						10,639
5. Attendances made by pupils for treatment						
						11,212
6. Half-days devoted to:-						
Inspection	..	..	..	..	..	87
Treatment	..	..	..	..	..	863
Total						950
7. Fillings:-						
Permanent	..	..	..	..	..	138
Temporary	..	..	..	..	..	—
Total						138
8. Number of Teeth filled:-						
Permanent	..	..	..	..	..	138
Temporary	..	..	..	..	..	—
Total						138
9. Extractions:-						
Permanent	..	..	..	..	..	3,579
Temporary	..	..	..	..	..	12,938
Total						16,517
10. Administration of general anaesthetics for extraction						
						7,707
11. Other operations:-						
Permanent	..	..	..	..	..	650
Temporary	..	..	..	..	..	—
Total						650

Mental Welfare

ADMINISTRATION

WORK UNDERTAKEN IN THE COMMUNITY

- (a) PREVENTION, CARE AND AFTER-CARE
- (b) UNDER THE LUNACY AND MENTAL
TREATMENT ACTS
- (c) UNDER THE MENTAL DEFICIENCY ACTS
 - (i) GUARDIANSHIP AND SUPERVISION
 - (ii) OCCUPATION CENTRE
 - (iii) INDUSTRIAL CENTRE

AMBULANCE SERVICE

Mental Welfare

Mental Health Service

H. V. BURKE, *Mental Welfare Officer.*

Administration

(a) *Constitution and meetings of Committee.*

The Service is administered by the Health Committee's Mental Health Sub-Committee, which consists of twelve elected representatives of the Council and three co-opted members. Monthly meetings are held.

(b) *Staff employed in the Mental Health Service is as follows:-*

Medical Officer for Mental Health (vacant).

Mental Welfare Officer.

Four Duly Authorised Officers.

One Occupation Centre Supervisor.

Six Assistant Occupation Centre Supervisors.

One Mental Deficiency Social Worker.

Clerical Staff (2).

(c) *Co-ordination with Regional Hospital Board and the Hospital Management Committees.*

Co-operation with these bodies has been maintained.

The arrangements for the Mental Health Service to perform all domiciliary visitation duties on behalf of the local "B" Group Hospital Management Committee in respect of mental defectives was terminated on December 31st 1951, but close co-operation in this work continues.

(d) *Duties delegated to Voluntary Associations.*

No duties have been delegated to voluntary associations but the Department continues to keep in touch with the National Association for Mental Health which continues to be of help and service in many ways.

(e) *Training of Mental Health Workers.*

Students for the "Diploma" Course for Occupation Centre Supervisors promoted by the National Association for Mental Health have continued to attend our Occupation Centre for practical training. Field workers in the Mental Health Service have "sat-in" to lectures on mental health given to the student Health Visitors Course at the Bradford Technical College.

Work Undertaken in the Community, etc.

(a) *Prevention, Care and After-Care.*

An increase in the number of authorised officers has enabled further after-care work to be pursued and it is felt that good work has been done in this direction. During the year 255 after-care visits were made to persons discharged from mental hospitals and much help was given. At the same time in the absence of properly qualified workers for this particular work and especially perhaps in view of the desirability for duly authorised officers to perform comprehensive duties in the local authority field of mental health, an academic course of instruction is a real need for these officers.

Efforts have been made to obtain approval to our desire for the mental health workers to keep in touch with patients after admission and so to regard them as friends and accept their help after mental hospital treatment.

Many cases have again been referred by this Service to the Psychiatric Out-Patient Clinics at St. Luke's Hospital and the Bradford Royal Infirmary. There has been some delay in the making of appointments at these clinics by reason of pressure of work on those concerned, and the desirability of having the services of a psychiatrist available within our own Mental Health Service is evident.

It might be said from contact with the relatives of many patients throughout the year, that the old fear of the mental hospital still appears to linger. Much misunderstanding about what happens "inside" still exists in the minds of the public. Nevertheless it is felt that the presence of mental illness as something which can be successfully treated by modern methods is gradually becoming appreciated, thanks no doubt to the work of the psychiatric clinics, to the "mental-health-education" work of the National Association for Mental Health, and indeed, to the efforts of our own officers in the field. It is perhaps not too much to hope that within a very short time the reluctance of the public to the admission of near relatives to Mental Hospital will further diminish.

(b) *Under the Lunacy and Mental Treatment Acts.*

The incidence of persons notified as of unsound mind and those suffering from mental illness during 1951 has maintained itself at the same level as in 1950, showing a total increase in the number of cases of 5 only.

The greatest difficulty experienced by the authorised officers in carrying out their duties has again been the shortage of "Section 20" accommodation.

It is appreciated that the general acute position of shortage of beds in mental hospitals has not been eased, but it is felt that perhaps some outlet to the bottleneck in those hospitals designated for the purposes of Section 20 could have been made by a flow of the chronic senile cases from Section 20 hospital to the chronic sick wards and to Part III accommodation.

Many such senile dementia cases, whilst being noisy and aggressive on admission, appear to settle down after a few days and could doubtless be adequately cared for in the alternate accommodation suggested. Not only would this release beds for other urgent admissions, it would serve to avoid the certification of so many old people who must have institutional care and attention.

The following facts are of interest in this connection. During 1951, of 326 persons dealt with under the Lunacy Acts, no less than 107 were over the age of 70 years, and of 229 cases calling for action under Sections 20 and 31, some 53 died or were discharged before further action was taken, and 62 were re-graded as so-called voluntary patients. It is suggested that many of these 62 cases could have been adequately cared for outside the mental hospital had there been requisite accommodation.

A further aspect of this problem of the senile case is that the direct certification forced upon the Service by the lack of "observation (Section 20) beds," results in the admission wards of the large mental hospitals concerned becoming increasingly full of aged chronic cases requiring care and attention only, and occupying beds which would normally be used for those patients requiring positive treatment for mental illness.

On this point it might be mentioned that owing to this difficult bed situation it is frequently impossible to obtain vacancies for would-be voluntary cases; a very regrettable matter indeed when this form of admission is so much advocated and so very desirable for suitable cases.

Table 1 indicates the number of cases dealt with under the Lunacy and Mental Treatment Acts during the year ended 31st December, 1951.

(c) *Under the Mental Deficiency Acts, 1913-1918.*

(i) *Guardianship and Supervision.*

During the year over 2,160 visits have been made to the homes of mental defectives, approximately a third being on behalf of the local "B" Group Hospital Management Committee. It has been possible to place many defectives in local employment.

Clothing for defectives has been supplied by the Corporation through its Mental Health Service in several cases during the year and suitable employment provided in certain cases. Cases referred to the National Assistance Board have met with co-operation from the officers of the local offices of the Board.

Reference is made elsewhere in this report to the shortage of mental hospital accommodation, and in the field of mental deficiency it must be said that a similar shortage of institutional accommodation causes us great concern.

There is no doubt that the Council's Occupation Centre, now taking upwards of 100 ineducable children, has met a very real need and has done much to alleviate the distress in the homes of those cases which are really of the institutional-care type for whom vacancies cannot be obtained.

The case of a mother with three other children under 6 years having to go on looking after a child of idiot grade, whose every need has to be tended by the already overworked mother, is typical of such distress.

The local authority is in the invidious position of having the responsibility to admit but no power of admission.

The following return as made to the Ministry of Health shows the number of defectives reported and dealt with:-

Under the Mental Deficiency Acts, 1913—1938

		During 1951				Total as at 1st January, 1952			
		Under age 16		Aged 16 and over		Under age 16		Aged 16 and over	
		M.	F.	M.	F.	M.	F.	M.	F.
1.	<i>Particulars of cases reported during 1951</i>								
(a)	Cases reported by Local Education Authorities (Section 57, Education Act, 1944)								
(i)	Under Section 57 (3)	7	10	—	—	—	—	—	—
(ii)	Under Section 57 (5)								
	On leaving special schools ..	1	1	16	14	—	—	—	—
	On leaving ordinary schools ..	—	—	1	—	—	—	—	—
(b)	Cases referred by the police or by the Courts under Section 8(1) (a) (or as a result of other action by the Courts) ..	1	1	1	—	—	—	—	—
(c)	Other defectives reported during 1951								
(i)	found "subject to be dealt with"	4	4	2	2	—	—	—	—
(ii)	not at present "subject to be dealt with"	—	1	—	1	—	—	—	—
Total number of cases reported during the year		13	17	20	17	—	—	—	—

2.	<i>Disposal of cases</i>								
(a)	those found "subject to be dealt with"								
(i)	Placed under Statutory Supervision	8	12	17	14	69	60	201	141
(ii)	Placed under Guardianship ..	—	—	—	—	—	—	3	1
(iii)	Taken to "Places of Safety" ..	1	2	1	2	—	—	—	—
(iv)	Admitted to Institutions ..	1	1	2	—	36	26	197	136
(v)	Died or removed from area ..	—	—	—	—	—	—	—	—
(vi)	Action not yet taken	3	1	—	—	3	1	—	—
(b)	those not at present "subject to be dealt with"								
(i)	Placed under Voluntary Supervision	—	—	—	—	—	—	26	11
(ii)	Later found not to be defective	—	—	—	—	—	—	—	—
(iii)	Died or removed from area ..	—	—	—	—	—	—	—	—
(iv)	Action unnecessary	—	1	—	1	—	—	—	—
(v)	Action not yet taken	—	—	—	—	—	—	—	—
Total of item 2		13	17	20	17	108	87	427	289

		Aged			
		Under age 16		16 and over	
		M.	F.	M.	F.
3.	<i>Classification of defectives in the Community on 1.1.52</i>				
(a)	Cases included in item 2(a) (i) to (iii) above in need of institutional care:				
(1)	In urgent need of institutional care:				
(i)	cot and chair cases	3	—	—	—
(ii)	ambulant low grade	2	1	—	—
(iii)	medium grade cases	—	1	—	—
(iv)	high grade cases	—	—	—	—
(2)	Not in urgent need of institutional care:				
(i)	cot and chair cases	3	2	—	—
(ii)	ambulant low grade	5	1	1	—
(iii)	medium grade cases	—	1	2	1
(iv)	high grade cases	—	—	—	—
		13	6	3	1

						Aged			
						Under age 16		16 and over	
						M.	F.	M.	F.
3. Classification of defectives in the Community on 1.1.52									
<i>(continued):</i>									
(b) Of the cases included in item 3(a) number in need of institutional care <i>only</i> because of poor environment									
(i)	medium grade cases	..	..	..	..	—	1	—	1
(ii)	high grade cases	..	..	..	..	—	—	—	—
Total of item 3(b)						—	1	—	1
(c) Of the cases included in items 2(a) (i) and (ii) and 2(b) (i), number considered suitable for :-									
(i)	occupation centre	..	..	..	..	47	50	1	5
(ii)	industrial centre	..	..	..	..	—	—	31	—
(iii)	home training	..	..	..	..	—	—	—	—
Total of item 3(c)						47	50	32	5
(d) Number of cases receiving training on 1.1.52									
(i)	in occupation centre	..	..	..	..	46	48	1	5
(ii)	in industrial centre	..	..	..	..	—	—	—	—
(iii)	at home	..	..	..	..	—	—	—	—
Total of item 3(d)						46	48	1	5

4. Number of Mental Defectives who were in Institutions, under Community Care (including Voluntary Supervision) or in "Places of Safety" on 1st January, 1951, who have ceased to be under any of these forms of care during 1951.

					M.	F.	T.
(a)	Ceased to be under care	..	..	..	—	—	—
(b)	Died, or removed from area, or lost sight of	..	..	..	95	68	163
Total					95	68	163

5. Of the total number of mental defectives under Supervision or Guardianship or no longer under care.

(a)	Number who have given birth to children while unmarried during 1951..	..	..	..	..	..	..	2
								Males Females
(b)	Number who have married during 1951	..	..	..	..	..	..	3 5

(ii) Occupation Centre.

The Occupation Centre for ineducable mentally defective children which opened in September, 1949, has continued to progress and there are now over 100 in attendance. Conveyance of the children by the Council's Ambulance Service has undoubtedly assisted in the high average attendance.

“Open Days” for parents continue to be popular, and the relatives and friends attending these occasions at the Occupation Centre continue to show some amazement at the progress many of the children are making. The concerts in which the defectives are the sole artists are becoming quite “professional.”

Facilities for training of students for the “Diploma” Course for Supervisors of Occupation Centres, promoted by the National Association for Mental Health, have been continued.

(iii) *Industrial Centre.*

The adaptations for the Industrial Centre are practically completed; provision will be made for the training of about 30 unemployable adult male defectives.

Ambulance Service

Of the total of 453 patients removed during the year to mental hospitals, 445 were conveyed by ambulance and other transport of the Health Department.

Care and After-Care Services

HOME NURSING

DOMESTIC (HOME) HELP

CONVALESCENT HOME TREATMENT

MEDICAL LOAN EQUIPMENT

CARE OF THE ELDERLY

BRADFORD CORPORATION SICKNESS SCHEME

MEDICAL CARE OF CHILDREN (CHILDREN'S ACT)

HEALTH EDUCATION

Care and After-Care Services

S. HOWARD, M.B., Ch.B.

Senior Assistant Medical Officer, Care and After-Care Services

The co-ordination of the Care and After-Care services into one separate department at 22 Edmund Street, which was recorded in the previous annual report, has worked very smoothly during the last twelve months.

The work, which although not spectacular, is nevertheless very important, has grown considerably since the Department was formed.

Home Nursing

The establishment of the Service is 30, and the average number employed during the year was 20.

The work of the district nurse in Bradford is hard, because the area within the City boundary is hilly and widespread, therefore so much time has to be spent in travelling. At the end of the year, the Bradford District Nursing Council owned three cars, and it is hoped to double this number in the near future. A car allowance is paid to all nurse car-owners.

In addition to the Central Home which is situate at 93 Little Horton Lane, there are three fully furnished houses, each accommodating two nurses. The furnishing for these three houses was financed by the Bradford District Nursing Association.

Liaison between hospitals and general practitioners is good; two-thirds of the new cases having been referred from 130 general practitioners, and the other third from hospitals in and beyond the City.

TABLE 1. *Classification of New Cases and Visits*

	Cases	Visits
Medical	1,534	26,214
Surgical	761	13,546
Gynæcological	168	303
Pneumonia	93	721
Tuberculosis	40	425
Measles	3	21
Other infectious diseases	12	134
Complicated midwifery of maternity ..	6	76
Totals	2,617	41,440

These totals include the following:

	Cases	Visits
O.A.P.	1,264	18,691
Children under 14 years	256	869
Injections	396	2,118
Home operations	6	108

Domestic (Home) Help

A Home Help Service was established in Bradford by the Bradford Maternity Care Committee in 1929. The extension of the Service was one of the provisions of the National Health Service Act, 1946. A full-time organiser was appointed in 1946. Six full-time and 12 part-time helps constituted the staff at that time, and these formed the nucleus of the Service when it was taken over by the Health Committee.

The following figures show the increase in the number of home helps employed and the cases attended since July, 1948.

Date	Total No. of Helps	Full-time	Part-time	Average number of Cases attended weekly
July 1948	18	6	12	—
December 1948	35	15	20	43
December 1949	49	25	24	76
December 1950	69	30	39	136
December 1951	99	45	54	200

Each applicant for help is visited by the organiser in order to assess the amount of help required. Urgent cases are supplied with a home help without delay, but in order to do this, help has sometimes to be withdrawn from some other less urgent case.

There has been an increased demand again during the past year for help for elderly people. Home helps are supplied to these cases as far as possible, but at times it is not always possible to do this immediately because maternity cases and cases of acute illness must, of necessity, have priority. The charge for the services of a home help is decided by the assessment officer of the Department, in accordance with the scale recommended by the Association of Municipal Corporations, and adopted by the City Council.

The services of a home help are provided for a maximum period of six weeks. This period, however, may be further extended in necessary cases.

The duties of a home help are as follows:—

1. Keep the house clean and tidy.
2. Cook and prepare the meals for the family.
3. Care for the children of the house.
4. See that the older children attend punctually and regularly at school.
5. Do all domestic washing (except arrears.)

TABLE 2. *Details of Cases Attended and Requests Received for the Services of a Home Help during 1951*

Number of applications for help in:—							
General and chronic sickness cases	..	..	..	..	..	..	492
Old people ..	..	..	..	..	..	..	341
Tuberculosis cases	..	..	..	..	..	..	19
Blind people	..	..	..	..	..	..	12
Maternity cases	..	..	..	..	..	..	414
Total number of applications for help ..							1,278

In addition to these approximately 240 more applications must be added, for which no help was available.

Number of cases where help was given:—							
General and chronic	..	..	..	..	..	..	386
Old people ..	..	..	..	..	..	..	298
Tuberculosis cases	..	..	..	..	..	..	17
Blind people	..	..	..	..	..	..	11
Maternity cases	..	..	..	..	..	..	179
Total number of cases attended ..							891

Number of free cases attended during this period:—

General sickness	78
Old people	193
Tuberculosis cases	6
Blind people	10
Maternity cases	5
Total number of free cases attended	<u>292</u>

Number of cases attended where a charge was made:—

General sickness	308
Old people	105
Tuberculosis cases	11
Blind people	1
Maternity cases	174
Total number of cases attended where a charge was made	<u>599</u>

Average number of hours worked each week	2,651
Average number of hours worked at each case	155
Amount collected during this period where a charge was made	£4,511 6s.
Amount paid in wages to home helps during this period	£14,775 8s. 2d.
Amount paid in travelling expenses to home helps during this period.. .. .	£865 15s. 6d.

Number of home helps employed at 1st January	Full-time	30
	Part-time	39
		<u>69</u>

((Equivalent to 47 full-time helps working 48 hours a week).)

Number of home helps employed at 31st December	Full-time	45
	Part-time	54
		<u>99</u>

((Equivalent to 67 full-time helps working 48 hours a week.)

Details showing how the figures differ between number of applications for a home help and the number of cases attended, are set out below:

Total number of applications.. .. .	1,278
Number of cases attended	891
General cases cancelled	106
Old people cancelled	43
Tuberculosis cases not proceeded with	2
Blind people cancelled	1
Maternity cases cancelled	149
Maternity cases booked as far ahead as June, 1952	86
	<u>1,278</u>

Convalescent Home Treatment

Arrangements for the admission of certain patients to convalescent homes for a period of treatment at a reduced cost or free of charge continued during the year. The Semon Convalescent Home, Ilkley, which is administered by the Bradford Corporation Health Department, accommodated the majority of these. Suitable patients for consideration under this scheme are those who are recovering from an illness and require convalescent treatment so that they may be fit to return to work.

In addition, the Silver Jubilee Home, Heysham, administered by the Bradford Maternity Care Committee, has also accommodated many mothers and young children under five years of age. The charges vary according to means and in many cases children are sent free of charge through the Victoria Convalescent Fund. Several patients who were specially recommended for convalescent home treatment at the seaside were sent to other private convalescent homes.

During 1951, 137 persons applied for admission to convalescent homes through the Health Department. Of these, 105 were admitted and the remaining 32 cancelled their applications for one reason or another. Below are appended details of persons admitted to convalescent homes during the year:—

Name of Home	Number of Admissions
Silver Jubilee Home for Mothers and Children, Heysham ..	33
Semon Home, Ilkley	58
Blackburn and District Convalescent Home, St. Annes-on-Sea	3
Manchester and Salford Convalescent Home, Southport ..	6
Yorkshire Forresters' Convalescent Home, Bridlington ..	2
Women's Convalescent Home, Morfa Hall, Rhyl ..	1
Lady of Lourdes Convalescent Home, Grange-over-Sands ..	2
	105

Medical Loan Equipment

Requests for the loan of home nursing equipment have continued to increase during the past year.

In 1950, the number of applications received was 312, and the number of articles loaned 416. In 1951, 825 applications were received, and 1,223 articles were loaned.

In general, the various types of home nursing equipment show, on return, that good care has been taken during the period in which they have been on loan, and expressions of appreciation, both verbal and written, are constantly received from patients and their relatives.

A certificate is required on each application for the loan of home nursing equipment, and the following table shows the sources from which the certificates were received during the year, and the numbers.

TABLE 3. *Sources from which certificates were received—1951*

Source	No.
Medical practitioners	479
District nurses	233
Hospital almoners	43
Midwives	29
Health visitors	31
Bradford Executive Council	4
Chest Clinic	4
Pinderfields Hospital	2
	825

The following table shows the type and number of articles loaned during the year.

TABLE 4. *Articles loaned—1951*

Type of Article	No.
Air rings	329
Bed cages	32
Bed pans	263
Bed rests	134
Bedsteads	5

Bed tables	9
Children's cots	1
Fracture boards	1 set
Dunlo-mattresses	4
Diabetic scales	4
Feeding cups.. .. .	9
Invalid chairs	126
Pole chains	4
Rubber sheets	261
Hot water bottles	7
Sputum mugs	6
Urinals	28
	1,223

No charge is made for the loan of home nursing equipment, but applicants are required to sign an undertaking to return the article in good condition and to pay for any articles which are lost or damaged whilst in their care.

Care of the Elderly

The medical care and treatment of residents in Part III Accommodation under the National Assistance Act continues to be undertaken by the Medical Officer in charge of the Care and After-Care Service.

Daily visits are paid by him to "The Park", which accommodates the greater proportion of residents, and visits to the hostels at Blankney Grange, Shirley Manor, Norman Bank, Upper Syke, Bolton House and Rawdon Cragg are also made as required.

The general health of the residents in the welfare establishments has remained good during the year.

Several visits to elderly people in their own home have been made during the year. These visits have resulted from reports from various sources, of elderly folk, usually living alone, who are in need of care and attention. The Medical Officer has visited each case. In some cases arrangements have been made for admission of the patient to one of the welfare establishments or to hospital. In other cases, the attendance of a home help, and where necessary, a district nurse, has been arranged, and the patient has been kept under supervision at home.

Although much has been done in recent years for the care and welfare of the elderly by means of welfare establishments, old people's clubs, 'meals on wheels' service, mobile libraries and home visits by health visitors, welfare officers, etc., experience gained from visits to old people in their own homes convinces one that more "friendly" visits by voluntary organisations and by friends, relatives, and neighbours would be of great value and help to these old people.

Bradford Corporation Sickness Scheme

Medical examinations in connection with the above are conducted at the Care and After-Care Department. During the year, 297 persons were examined and reports furnished to committees.

Medical examinations to decide on the fitness of Corporation employees to be admitted to the superannuation fund are also carried out. The number of employees examined for this purpose during the year was 837. Five cases were also examined for other authorities.

Medical Care of Children (Children's Act)

There are in Bradford, on average, 330 children and babies under the care of the Local Authority. Accommodation is provided for them at the Central Home in Park Road, in two nurseries, the Homes at Squire Lane and at hostels for working boys and working girls. Apart from these, accommodation is provided in houses in various parts of the City. Each of these houses accommodates 8 or 9 children, who are cared for by a foster mother.

Each child is medically examined on admission to the homes, and again on discharge. During his stay in the homes, each child undergoes a routine medical examination in accordance with Home Office Regulations. Medical examinations are also carried out whenever a child is boarded out and subsequently at regular intervals—also before a child is transferred to a home under another local authority. The Medical Officer's surgery is situated at the Central Home in Park Road, and during the year a small sick bay has been established adjoining the surgery.

The Medical Officer attends the surgery daily, and is always available should his services be required for cases of illness or accident among the children, to whom he is the general practitioner.

The health of the children in general has been good, and there have been no major epidemics during the year.

Health Education

The main propaganda efforts were directed towards building an informed public opinion in the matter of health and hygiene, and also to improving the knowledge and hygienic standards of workers in food trades.

During the year numerous lectures were given to many different organisations by various members of the health department staff. The subjects of the lectures covered all branches of health department work and attempted to show to as many people as possible, how many diseases can be prevented by the application of good hygienic standards. Attention was drawn to the great increase in food poisoning and to the dangers of faulty cooking and preparing methods in large establishments. The special "danger" foods were emphasised and filmstrips were provided to demonstrate the points raised. The practice of lecturing on food hygiene to the canteen staffs in the City, which was commenced towards the end of last year, was continued until all the industrial canteens, employing more than a staff of 6, had been visited. In all, 43 lectures were given to 379 canteen assistants. The lectures were well received and many questions were asked by the staffs. There is little doubt that in this way many workers in the food trade will have heard the lectures, whereas if they had been arranged in the evenings, we would largely be in the position of talking to the converted.

Advantage was taken of the outbreak of paratyphoid fever in the City to again re-emphasise, by means of special letters to managers of all food premises in the City, how such diseases might be prevented by good hygiene.

The educative work of medical officers and health visitors in the child welfare clinics throughout the City has gone on steadily; pamphlets on baby feeding and the management of childish ailments were distributed to the mothers and constant advice on child care has been given. Although instruction in the necessity for immunisation and vaccination has now become an integral part of the health visitor's work when the baby is between 6 and 9 months old, a special propaganda campaign was carried out in the City during the month of May. This consisted of special talks in the various child welfare clinics and to organisations in the City, the displaying of posters, advertisements and announcements in the local press expressing the value of diphtheria immunisation and slides on cinema screens during public performances. Several of the large shops in the City co-operated by allowing us to use their windows for displaying the special sets issued by the Ministry of Health for the campaign. It is gratifying to be able to record the pleasant, helpful way in which the firms in the City co-operated in this important campaign.

We were indebted to the Manager of the City Corporation Transport Department for granting us space in many of the passenger vehicles for the display of posters.

An exhibition stand in the Health Service Advice Bureau showed many interesting topics loaned during the year from the Central Council for Health Education, and the programme of renting hoardings throughout the City to show health posters continued.

Several medical officers and sanitary inspectors on the staff hold appointments at the Bradford Technical College, where they lecture and give practical demonstrations in hygiene, sanitation and sanitary law, etc., to student sanitary inspectors and sanitary inspectors who are studying for their Meat and other Foods Certificate. In these courses every effort is made to impress upon them the basic principles of health education so that the students, in their turn, may know how to pass on their information and knowledge to the general public when they have qualified.

Ambulance Service

Ambulance Service

W. R. BROWN, *Ambulance Officer*

The number of patients carried during the year continued to show a steady increase, but not so large as during the previous year. There are signs that the figures are becoming more stable, and it is not expected that any further substantial increase is likely to take place. It is worthy of note, however, that the number of cases carried is a very high proportion of our total population. The highest monthly figure occurred in November for the third successive year.

The number of out-patients for whom transport was provided reached a new high level and showed a 25 per cent increase over the previous year—a most disturbing feature of the work of the Service.

It is encouraging to note a decrease in the number of accident cases and also infectious disease cases, in spite of the outbreak of paratyphoid fever in October.

In May the Ambulance Officer attended a special civil defence course of training at the Home Office Technical Training School, Falfield, Gloucestershire.

The agreement with the St. John Ambulance Brigade was terminated on the 30th June, since which date the whole of the ambulance transport has been undertaken by the Local Health Authority Service.

All repairs and maintenance have been carried out on the premises by our own staff.

AMBULANCE SERVICE REMOVAL OF CASES MONTH BY MONTH, 1948-1951

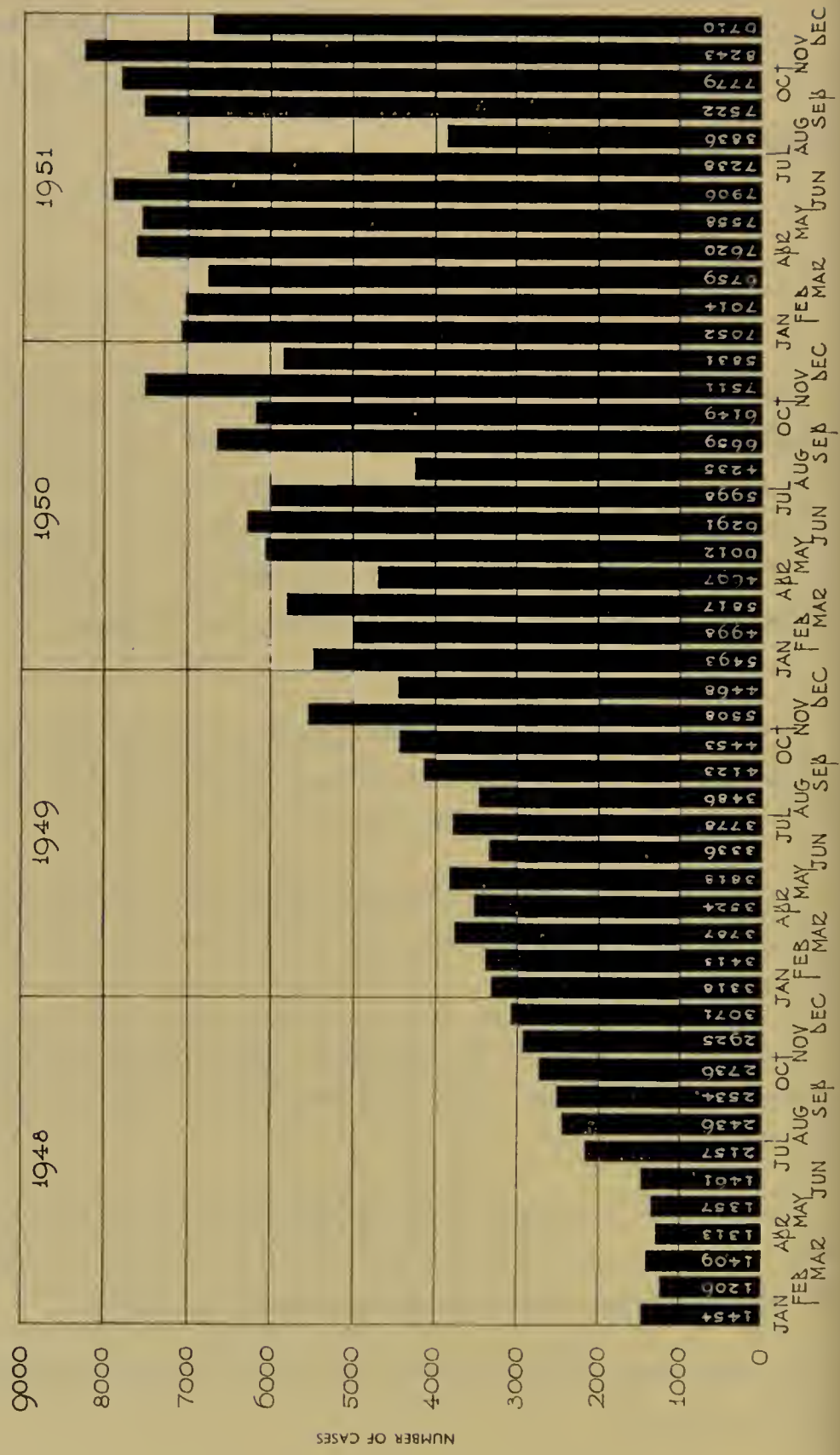


Fig. 14

Extensions to existing office accommodation have been completed and the whole of the station yard has been re-covered in tar-macadam. To facilitate night cleaning of vehicles, a concrete washing bay has been provided, illuminated by high power electric lighting.

Table 1 shows the number of cases in each category moved month by month in 1951.

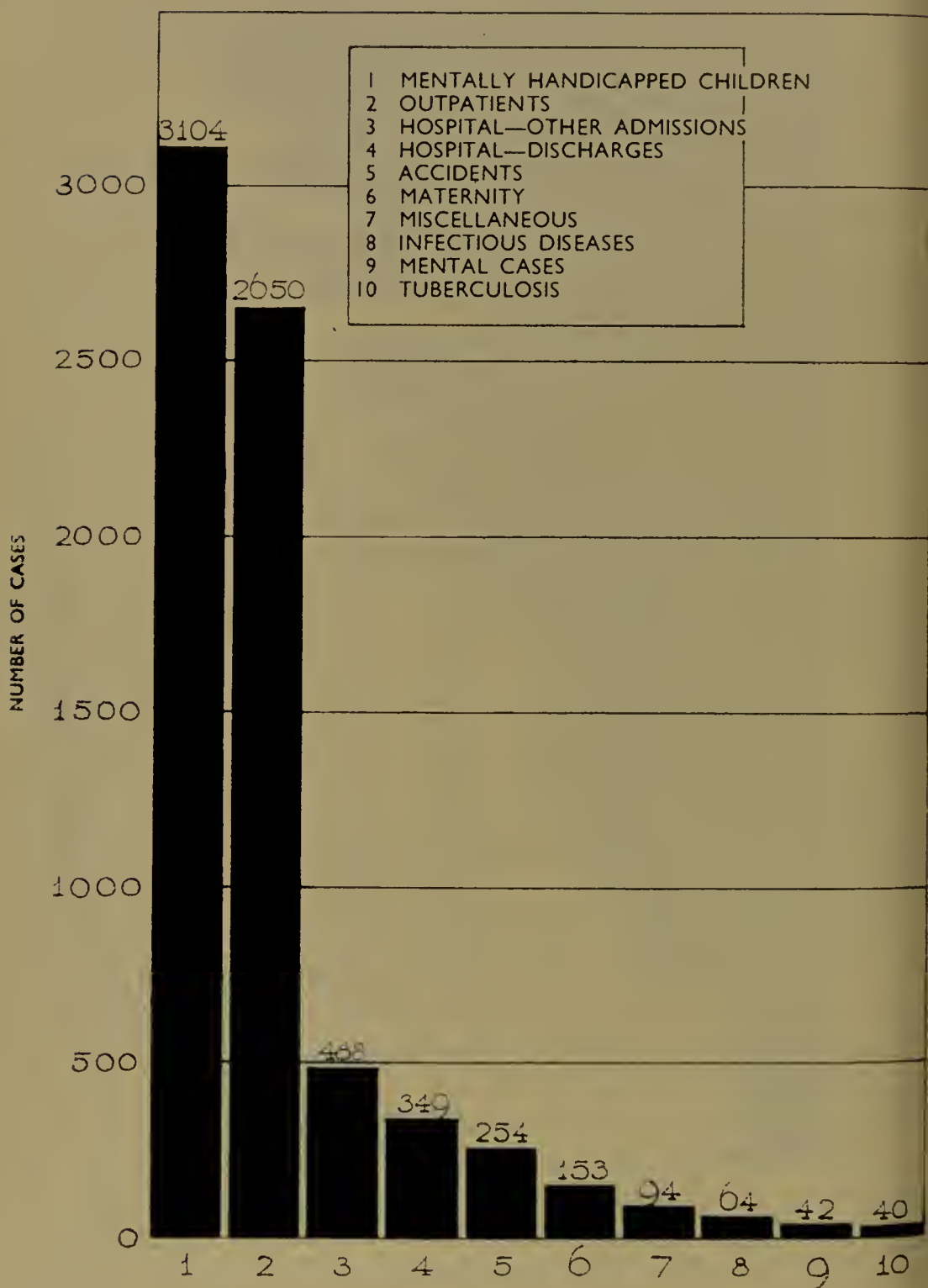
Figure 14 shows the number of cases removed month by month during 1948, 1949, 1950 and 1951.

Figure 15 shows the number of cases removed in a typical month (July, 1951).

TABLE 1 *Service Activity during 1951*

			Maternity	Infectious Diseases	Accident	Mentally Handi- capped Children	Out- patients	Others	Total
January	..	..	147	137	237	2,404	2,964	1,163	7,052
February	..	..	125	135	190	2,652	2,804	1,108	7,014
March..	..	..	165	130	234	2,300	2,736	1,194	6,759
April ..	..	..	138	152	247	2,998	3,084	1,001	7,620
May ..	..	..	184	137	282	2,449	3,366	1,140	7,558
June ..	..	..	149	129	245	3,190	3,164	1,029	7,906
July ..	..	..	153	64	254	3,104	2,650	1,013	7,238
August	..	..	101	85	208	—	2,573	869	3,836
September	..	..	158	79	269	3,322	2,769	925	7,522
October	..	..	138	163	239	2,908	3,260	1,071	7,779
November	..	..	153	97	218	3,600	3,215	960	8,243
December	..	..	148	84	269	2,453	2,718	1,038	6,710
Totals	..	..	1,759	1,441	2,892	31,380	35,303	12,462	85,237

AMBULANCE SERVICE NUMBER OF CASES MOVED IN A TYPICAL MONTH (JULY, 1951)



**Inspection and Supervision
of Food and Food Premises**

FOOD PREMISES

MILK SUPPLY

ICE CREAM

FOOD AND DRUGS

PHARMACY AND POISONS

FERTILISERS AND FEEDING STUFFS

MEAT INSPECTION

OTHER FOODS

Inspection and Supervision of Food and Food Premises

F. H. MYERS, M.R.S.I., M.S.I.A., *Chief Sanitary Inspector*

In Bradford the inspection of food is carried out by inspectors who have specialised in different branches of the subject, and premises where food is handled, stored or sold are visited by inspectors who cover the obligations of the Local Authority under the Shops Act, 1950, and at the same time enforce the cleanliness provisions of Section 13 of the Food and Drugs Act, 1938, thus saving duplication of visiting.

Food Premises

On 15th February, 1951, the Minister of Food confirmed byelaws made under Section 15 of the Food and Drugs Act, 1938, based on the model issued by his Ministry, but containing an additional clause designed to control the deposit of soiled laundry at food shops, a practice affecting over 250 premises in Bradford. Since the byelaws came into operation the laundries have provided detachable bags supported on stands in which customers can drop their laundry parcels, and this has obviated the handling of such soiled articles by the assistants dealing with foodstuffs.

To implement the byelaws visits were made to all food premises and it was found that at approximately 80 per cent of the shops contraventions of a greater or lesser degree existed. The visits were made in an advisory capacity and so far no legal enforcement has been attempted. In many cases the screening of foodstuffs has been held up by questions of space and expense, and shopkeepers are being given a reasonable time in which to bring their premises closer to the requirements of the byelaws. Re-visits indicate that a slow improvement is taking place, but considerable pressure will eventually be required in regard to a smaller percentage of shops.

Traders are not easily convinced of the necessity of protecting food-stuffs exposed on counters, as they claim that sales decrease if covers are provided, but this natural reluctance to accept new ideas will slowly vanish as more and more shops adopt display stands sited under glass or plastic covers, and it may well be that the best propagandists will be those shopkeepers who capture trade by installing the latest counters, covers and refrigerated storage. The public are being attracted to purchase from shops which claim to preserve their foodstuffs hygienically, and considerable developments are anticipated on these lines. Engineering firms are becoming aware of a growing market and are competing to produce better equipment, which, in turn, is a boost to the cleaner food campaign.

Wet fish is often sold as a subsidiary business to the fruit and vegetable trade, and such shopkeepers are loth to incur the expense of refrigerated display cabinets for what is often a side-line, but, again, the public are tending to turn to the most attractively and hygienically displayed goods.

With regard to the transport of food, most attention has been paid to the bread and confectionery trade. The wholesale bakeries have been visited and requests made for unwrapped foods to be despatched in trays. When vanmen have been observed carrying bread in their arms they have been reported to the firm concerned. Approximately 65 per cent of bread is sold wrapped in greaseproof paper and a considerable quantity of confectionery is now despatched in cardboard cartons. The cleanliness of the interiors of vans was generally satisfactory.

On the whole the cafes, restaurants and snack bars of the City were satisfactory. In the larger restaurants mechanical dish washing machines are installed, whilst in others a good hygienic standard is achieved by the use of the two sink method, whereby crockery is washed in one and plunged into hot water in the second. It is hoped to persuade more and more cafe proprietors to adopt this latter method, where the volume of trade does not warrant the expense of mechanical handling.

Most industrial canteens are well equipped, but here, as with all places where food is handled, stored or sold, there is risk of the spread of infection if the personnel overlook the basic principles of hygiene. To combat this "human element" risk, lectures on food hygiene were continued up to July. Appropriate film strips were used to illustrate the talks, and in this period 43 talks were given to a total of 379 canteen assistants who were responsible for the preparation of approximately 61,050 meals weekly.

In association with the School Meals Organiser a special report on the school meals service was submitted to the Director of Education and considerable improvements have been made on the lines suggested, such as the provision of new aluminium jacketed food containers, stainless steel knives, and better facilities for the washing of crockery at dining centres. The whole programme could not be realised because of financial restrictions. There are now 116 dining rooms and 34 kitchens in which meals are prepared for school children.

In this service 18 males and 577 females are employed of whom 382 are part-time workers. The number of meals provided per week is approximately 78,900. During the year 173 inspections were made.

Sixteen visits have been made to the 9 day nurseries under the control of the Health Department and conditions were found to be in every way satisfactory.

In addition there are 5 industrial nurseries in the City where the catering is very good indeed.

During the outbreak of paratyphoid fever described in another section of this report, all canteens, cafes and restaurants were contacted by letter and 615 visits were made to stress the imperative need for absolute cleanliness as a safeguard against the spread of such infections, and advice was given on methods of sterilising cutlery, crockery and food preparation equipment.

Milk Supply

The total amount of milk consumed daily in the City was about 24,000 gallons. This total consisted of approximately 5,000 gallons of raw farm milk and 19,000 gallons of processed milk. Regular sampling of these supplies has been carried out during the year for chemical analysis, bacteriological examination and biological testing.

A perceptible increase in the consumption of processed milk is noted and is welcome in view of the incidence of tuberculosis in the farm milks. No outbreaks of milk-borne disease occurred during the year.

Milk and Dairies Regulations, 1949

There were, at the end of the year, 873 persons registered for the sale of milk within the City. These may be classified as follows:—

Dairymen	..	..	..	..	162
Shops where milk sold in sealed bottles only	..	..	..	..	711

In addition to the above there were 144 producer retailers engaged in the sale of milk within the City.

The number of visits made was 855 and generally, conditions were found satisfactory.

Six licences to pasteurise milk and 1 licence to sterilise milk were granted. Approximately 17,000 gallons of milk were processed in the City daily.

Tuberculosis in Milk

The examination of milk for infection with the tubercle bacillus has proceeded throughout the year, particular attention again being paid to the local farms. The results have again justified this policy.

There were 231 dairy farms engaged in the production of milk in Bradford, and in addition milk from 59 farms outside the City boundary

was sold here. A total of 715 samples from these milks was examined biologically at the Public Health Laboratory during the year. Of these samples, 27 were found to contain tubercle bacilli.

As a result of investigations arising from these reports it is known that 29 tuberculous cows have been slaughtered. In 3 cases where the infected cows could not immediately be ascertained, notices were served on the farmer requiring all milk produced at the farm to be adequately pasteurised before sale. It is estimated that a total of 8,600 gallons of infected milk was made safe for consumption in this manner.

The following table shows the incidence of tuberculosis found in the different grades of milk during the past 4 years:—

	1948	1949	1950	1951
Tuberculin Tested Herds				
Samples taken	38	89	169	227
B. tuberculosis found	—	—	—	1
Accredited Herds				
Samples taken	148	177	233	220
B. tuberculosis found	5	4	14	13
Ordinary Herds				
Samples taken	149	159	278	268
B. tuberculosis found	7	4	17	13

Anthrax in Milk

In one case of anthrax at a farm it was felt that there was a danger that the milk may have become infected. A notice was therefore served on the farmer prohibiting him from selling any of his milk in Bradford for a period of 3 days.

Chemical Examination of Milk

Seven hundred and twenty-seven samples were analysed. The results show that 14 of the samples gave an analysis under 3·0 per cent of fat and 515 over 3·5 per cent of fat, while 151 of these samples gave an analysis under 8·5 per cent of non-fatty solids. The total below both 3·0 per cent of fat and 8·5 per cent of non-fatty solids was 5. In most

Table 1

CHEMICAL ANALYSIS OF MILK

FAT SOLIDS NOT FAT

YEAR	Under 3.0%			3.0% to 3.5%			Over 3.5%			Under 8.5%			8.5% and over			Total
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	
1951	..	..	14	1.9	198	27.2	515	70.9	151	20.8	576	79.2	727	79.2	576	727
1950	..	..	10	1.3	188	25.6	539	73.1	95	12.9	642	87.1	737	87.1	642	737
1949	..	..	8	1.7	190	40.5	271	57.8	58	12.4	411	87.6	469	87.6	411	469
1948	..	..	8	1.4	235	41.7	320	56.9	131	23.3	432	76.7	563	76.7	432	563
1947	..	..	6	1.0	248	41.1	349	57.9	157	26.0	446	74.0	603	74.0	446	603
1946	..	..	11	1.9	221	38.8	337	59.3	111	19.5	458	80.5	569	80.5	458	569
1945	..	..	24	3.4	346	48.3	347	48.3	119	16.6	598	83.4	717	83.4	598	717
1944	..	..	23	3.0	247	32.1	489	64.9	54	7.0	705	93.0	759	93.0	705	759
1943	..	..	21	3.2	220	33.0	417	63.8	88	13.2	570	86.8	658	86.8	570	658
1942	..	..	18	2.7	181	27.2	460	70.1	92	13.8	567	86.2	659	86.2	567	659
1941	..	..	10	1.5	171	25.6	486	72.9	59	8.9	608	91.1	667	91.1	608	667
1940	..	..	13	1.9	213	31.9	452	66.2	27	4.0	651	96.0	678	96.0	651	678
1939	..	..	15	2.1	237	33.2	476	64.7	7	0.9	721	99.1	728	99.1	721	728
1938	..	..	27	4.2	268	41.4	352	54.4	21	3.3	626	96.7	647	96.7	626	647
1937	..	..	29	3.4	343	39.8	489	56.8	10	1.2	851	98.8	861	98.8	851	861
1936	..	..	15	2.8	213	39.6	310	57.6	1	0.2	537	99.8	538	99.8	537	538
1935	..	..	21	2.3	276	30.7	602	67.0	1	0.1	898	99.9	899	99.9	898	899
1934	..	..	33	3.5	348	37.3	552	59.2	9	1.0	924	99.0	933	99.0	924	933
1933	..	..	38	4.0	413	44.0	489	52.0	8	0.9	932	99.1	940	99.1	932	940
1932	..	..	47	5.0	353	37.7	537	57.3	10	1.0	927	99.0	937	99.0	927	937
1931	..	..	25	2.0	379	36.4	637	61.6	15	1.5	1026	98.5	1041	98.5	1026	1041
1930	..	..	37	3.7	343	34.6	610	61.7	10	1.0	980	99.0	990	99.0	980	990

cases the adulterations were small and warnings were issued. Legal proceedings were instituted in 2 cases, in both of which convictions were obtained against the producer under the Food and Drugs Act, 1938. The penalties imposed were:—

- (a) £2 fine and £1 1s. costs.
- (b) £6 fine and £2 17s. costs (totals for two charges).

Table 1 gives comparative figures for the milks examined during the period 1930 to the present year.

Examination of Raw Milk

Samples of raw milks were taken regularly during the year for bacteriological examination. In the cases of unsatisfactory samples of farm milks, examination reports were notified to the Ministry of Agriculture and Fisheries with a request that investigations be made at the farm with a view to improving the cleanliness of the milk.

Samples Taken	Methylene Blue Reductase Test	
	Pass	Fail
720	648	72

Examination of Heat-treated Milk

Samples of heat-treated milk were taken regularly and included milk processed at dairies both in Bradford and outside.

In the cases of unsatisfactory samples the Bradford dairies were visited and investigations made into the methods of milk handling, cleansing and sterilisation of equipment. When an unsatisfactory sample from a dairy outside Bradford was obtained, a request was made to the enforcing authority for that area to take similar action.

Class of Milk	Number of Samples	Phosphatase Test		Methylene Blue Reductase Test		Turbidity Test	
		Pass	Fail	Pass	Fail	Pass	Fail
Tuberculin Tested							
Pasteurised	240†	237	1	223*	3	—	—
Pasteurised	444†	435	5	409*	10	—	—
Sterilised	42	—	—	—	—	42	—

* 14 Tests for Tuberculin Tested Pasteurised and 25 Tests for Pasteurised milk reported void.

† 2 Tuberculin Tested Pasteurised and 4 Pasteurised milks subjected to Methylene Blue Test only.

Ice Cream

During recent years ice cream has changed from being a seasonal delicacy to a regular article of diet throughout the year. In consequence much attention has been paid to the conditions under which it is manufactured and sold, as this product is a favourable medium for the growth of bacteria.

Many visits were made, and the cost of building alterations and new plant, purchased as a result of recommendations made to comply with the requirements of the Ice Cream (Heat Treatment) Regulations, 1947, is estimated to be, since the Regulations came into operation, of the value of £41,000. New machinery included heaters, coolers, freezers and refrigerator storage units, fitted with indicating and recording thermometers as necessary. Formerly, at some premises, the methods of cooling the ice cream mix during manufacture were unsatisfactory, but the installation of refrigerator coolers obviated these difficulties.

Steps were taken to prevent the contamination of ice cream sold from stalls and vehicles in the open air. As a protection against excessive sun and other weather conditions, all stalls and vehicles were suitably screened or covered and provided with service hatches. Provision was made for the washing of hands and the cleansing of ice cream utensils by the installation of hot water units.

Bacteriological Examination

Two hundred and seventy-two samples were submitted for examination during the year and they were graded as follows:—

Provisional Grade	No. of Samples
Grade I	186
Grade II	49
Grade III	26
Grade IV	11
	272

This follows the grading recommended by the Medical Research Council using the modified methylene blue test. If out of the four grades ice cream consistently fails to reach grades one and two, it is reasonable to regard this as indicating defects of manufacture or handling which call for further investigation.

Chemical Examination

From the 1st March, 1951, ice cream became subject to a legal standard under the Food Standards (Ice Cream) Order, 1951. The standard specified was that ice cream should contain not less than 5 per cent fat, 10 per cent sugar and $7\frac{1}{2}$ per cent milk solids other than fat.

Sixteen samples were submitted to the Public Analyst and all were reported to be satisfactory.

The average figures reported from analysis of these samples were:—

Fat 8.29%. Sugar 12.00%. Milk solids other than fat 12.67%.

Food and Drugs

The number of samples of food and drugs taken under this Act and submitted by the sampling officer to the Public Analyst for analysis was 1,121; of these, 1,059 were certified as genuine and 62 adulterated or doubtful. (The latter includes 29 adulterated milks reported in the milk section.)

In the majority of cases the adulterations were small and the vendors were cautioned. In 9 cases, however, it was considered that the institution of legal proceedings was warranted. Convictions were obtained under the Food and Drugs Act, 1938, in 8 cases, 1 case being dismissed on a legal technicality. The total penalties imposed were fines £27 5s. and costs £19 19s.

A table showing the number of samples procured and examined during 1951 will be found in the Appendix.

Continued vigilance has been exercised on premises throughout the City to ensure the enforcement of the Merchandise Marks Act, 1926.

Pharmacy and Poisons Act, 1933

The Act places duties on this Authority in relation to the control over the sale of poisons included in Part II of the Poisons List. This list includes certain poisons such as arsenical substances, mercuric

substances, nicotine, phenols, nitrobenzine, ammonia, etc., used principally for agricultural, horticultural, industrial and sanitary purposes.

The duties entail the enforcement of compliance with the provisions of Part II of the Act and Poison Rules made under the Act relating to the sale of these poisons.

The number of applications for entry on the list of the Local Authority under the above Act was 665. The following table sets out the number of persons entered according to the respective trades. Each of the premises was inspected when applications were received as follows:—

Number	Horti- culture	Hardware Dealers	Herbalists	Hair- dressers	Grocers and General
665	9	75	6	9	566

Fertilisers and Feeding Stuffs Act, 1926

Sampling was carried out under this Act, various meals and fertilisers being submitted to the City Analyst.

A table showing the number of samples procured and examined will be found in the Appendix.

Meat Inspection

The general working of the abattoir has been carried out in a satisfactory manner, although the buildings and equipment are far from satisfactory, and as the number of animals killed each year increases, it will become increasingly difficult to maintain a high standard of efficiency and cleanliness.

The improvements contemplated by the Markets and Fairs Committee have not yet been carried out. It was proposed to install stunning pens and electric winches in the cattle and pig slaughterhalls, which would eliminate much of the manhandling and goading of animals which now takes place. It would also be desirable from the humane point of view, as no animal would then be killed within the sight of another animal awaiting slaughter. These improvements would also bring the premises more into line with the Slaughter of Animals Act, 1933.

The total number of animals slaughtered at the abattoir during the year again shows an increase over the previous year. This is partly due to the large numbers of cattle and sheep slaughtered in Bradford for consumption in the London area. For a period of fourteen weeks in the latter part of the year an average of 150 cattle each week were killed and dressed here for transport by British Railways to Smithfield Market. In all cases the refrigerator waggons were inspected at Forster Square Station before the loading of meat commenced.

During the year there were 21 cases of *cysticercus bovis* found in cattle. All but one of these cases were in cattle of Irish origin. These carcasses, together with the offal, were refrigerated at a temperature of 14°F. for twenty-one days (which treatment destroys the cyst), and were then released for manufacturing purposes.

In no case was notifiable disease found during routine inspection of animals this year, but there was, however, a considerable increase in the number of pigs suspected to be suffering from, or contacts of, swine fever, slaughtered under the Swine Fever Order, 1938.

A total of 420 pigs were killed under this Order, 45 of which were found to be affected. These carcasses, together with offal, were handed over to the City Police who, under the Diseases of Animals Acts, are responsible for their destruction.

During the October-November outbreaks of foot and mouth disease in the East Riding and parts of the West Riding, a mobile team of slaughtermen was sent from this abattoir to kill and dress animals which had been in contact with confirmed cases. The carcasses of these contacts which were found to be sound were distributed to various abattoirs for disposal for human consumption. This abattoir received 107 cattle, 115 sheep, 17 calves and 12 pigs. These carcasses were again examined before being distributed to the manufacturing premises and shops.

Five cases of congenital tuberculosis in calves were found. In all cases the Ministry of Agriculture and Fisheries were notified and the herds from which the calves originated were examined by a Ministry Officer.

Thirty-two cows were slaughtered at the abattoir under the Tuberculosis Order, 1938, and many more suffering from tuberculosis with emaciation were sent by the Veterinary Inspector to the knacker's yard for slaughter. In nearly all cases the discovery of affected cows was due to the routine sampling of farm milks.

The meat transport services retained a high standard of efficiency during the year. No new transporters were put into service, but improvements and replacements were carried out on existing vehicles. All vehicles used for the transportation of meat are of the insulated container type.

During the year large numbers of diseased specimens of all types were collected for demonstration purposes at Bradford Technical College. Specimens were also collected and preserved in jars and these will go to form a small exhibition in the lecture room at the abattoir.

There are 451 butchers' shops situate within the City boundary, 35 of which are exclusively pork butchers and 4 are large meat manufacturing premises.

Four hundred and thirty-one of these premises are in excellent condition and a high standard of cleanliness is maintained. These premises are classified "A." Twenty shops classified "B" require some further improvement or replacement.

Regular inspections of butchers' shops were carried out throughout the year, the total number of visits being 2,071.

Other Foods

Supplies of fish, fruit and vegetables were regularly inspected throughout the year in the St. James's Wholesale Market, the wholesale fish warehouses and retail shops. Most of the fish, fruit and vegetables which are condemned are found to be unfit for food on arrival at the markets, railway stations and wholesale premises. This system of inspection at the centre of distribution lessens the risk of unsound foods being exposed for sale at retail shops. The number of visits made to food premises in the City for the condemnation of foods such as bacon, fats and tinned foods, was 938.

Tinned foods found to be unfit for human consumption included large quantities of imported canned boiled ham. The amount of these condemned, however, rapidly declined towards the end of the year.

By arrangement with the Corporation Cleansing Department such of the unsound foods as were fit for the purpose were converted into animal feeding stuffs. Details regarding foods condemned will be found in the Appendix.

Environmental Hygiene

DISTRICT INSPECTION

COMMON LODGING HOUSES

HYGIENE in

 FACTORIES

 WORKPLACES

OUTWORKERS

RAG FLOCK ACT

SHOPS ACT

RODENT CONTROL

SMOKE ABATEMENT

MEASUREMENT OF ATMOSPHERIC
 POLLUTION

HOUSING

BRADFORD CORPORATION ACT 1949

 ESTABLISHMENTS FOR SPECIAL TREATMENT

 HAIRDRESSERS AND BARBERS

Environmental Hygiene

F. H. MYERS, M.R.S.I., M.S.I.A., *Chief Sanitary Inspector*

During the year it has become obvious from the shrinking numbers of replies to advertisements for sanitary inspectors that the time is not far away when vacancies will remain unfilled. Unfortunately, a recruit cannot qualify under the present arrangements for four years, and a difficult period lies ahead unless the Working Party at present studying the recruitment, training and qualifications of sanitary inspectors is able to produce a positive policy and programme.

As the need for the sanitary inspector in the dirty court-yard is lessened, so is the value of his services increased in other positive fields. A family rehoused from a slum house is a family improved in mental outlook and one in which the possibility of tuberculous infection becomes more remote. The inspector must now give increased attention to the eradication of atmospheric pollution by constant propaganda as well as by enforcement of byelaws, and to improving the standard of cleanliness of that troublesome minority who are subject to infestation. The teaching of the simple rules of personal hygiene and the general availability of synthetic insecticides have reduced remarkably the number of houses grossly infested with bed bugs, but there has been little reduction in the number of minor infestations, and much remains to be achieved in this field.

Furthermore, there are still too many homes receiving insufficient application of the scrubbing brush. Poverty is no longer an excuse for failing to purchase household soap, yet inspectors still have to draw the attention of able-bodied housewives to their failings in this respect.

Nevertheless the picture is not too dark, and, as the general standard of living progresses, the number of dirty homes slowly decreases. Much of this problem, although aggravated in some cases by laziness, is tied up with the housing position. Many poor tenants improve considerably when they are rehoused, because they feel they have achieved something worth striving to retain, and it is hoped that soon a programme of slum clearance will be commenced, thus steadily eliminating the worst structures.

Apart from cases where strong measures have to be taken against tenants, the sanitary inspector still remains the guide, counsellor and friend of every person living on his district, and many seek his advice on matters outside his statutory duties. Thus he is the link between the public and many other services, and departments of the Local Authority, advising whom to approach, or passing on information or complaints to the appropriate official.

District Inspection

The City has been divided into districts for administrative purposes, and on each one a district sanitary inspector is responsible for all the routine work, including visits in connection with cases of some infectious diseases. Special attention is given to possible sources of infection and to tracing contacts. Other duties, such as those laid on the Council by the Factories Act and the Shops Act, are carried out by specialised inspectors who cover the whole City in regard to their own subjects.

During the year the Council authorised the appointment of two Divisional Sanitary Inspectors. One has taken charge of the north division and the other of the southern portion of the City, and already benefit is observed in the closer integration of the work of the district inspectors and in the functioning of the Department generally.

The district sanitary inspectors made 39,845 inspections and follow-up visits in connection with the investigation and suppression of nuisances. The total number of nuisances reported was 4,768. The statement in the Appendix shows the nature and the amount of work carried out by the district inspectors during the year. Much of the

work of the district inspectors results from complaints received in the Department and on the districts, and nuisances are ascertained from these sources. There were 4,741 such complaints as against 3,968 in the previous year. Much valuable work was carried out by persuasion, but it was necessary to serve 3,170 statutory notices regarding the abatement of nuisances as compared with 2,689 in the previous year.

It is, perhaps, too much to expect that such a number of nuisances would be abated without difficulty, and in 21 cases it was necessary to institute proceedings in the City Court. All these proceedings were successful, and in the majority of instances fines were imposed, as illustrated in the Appendix. In 12 cases work was completed following service of the summons and before the hearing took place, proving the value of taking this firm line of action.

It will be observed from the statistics that a considerable number of the notices served by the Department have been executed in default, and this power is a considerable lever when requesting work prior to serving statutory notices.

The district inspectors supervised 131 exhumations during the year which were carried out satisfactorily and without nuisance.

Good use has been made during the year of the new section in the Bradford Corporation Act, 1949, which gives power to require the cleansing of choked drains within 24 hours, and power to execute such notices in default.

Throughout the year routine samples of water for ascertainment of the degree of plumbo solvency were taken and the results of 135 such samples are shown in the Appendix at Table 13.

In addition, 324 samples were obtained at widely scattered positions and submitted for bacteriological examination. As a result one reservoir became suspect and representations were made to the Waterworks Committee. The public were excluded from access to the environs of the reservoir, and chlorination was instituted. Subsequent samples in 1951 were good.

Consequent upon the sampling of the stream and well supplies to farms and cottages in the outlying parts of the City during the previous year, the City Council on the 15th January, 1952, accepted the scheme prepared in conjunction with the Waterworks Engineer for the extension of the mains to all such parts of the City at an estimated cost of £23,166, subject to obtaining the appropriate grant from the Ministry of Agriculture and Fisheries, but some delay is being experienced because of the steel supply position.

In the middle of the year there were in Bradford 4,122 waste water (tippler operated) closets and the Council resolved, on 15th January, 1952, to effect their conversion to water closets under the provisions of Section 47 of the Public Health Act, 1936, by paying a proportion of the cost. £16,000 was voted in the estimates for the year 1952/1953 for this purpose, subject to Ministry consent.

Common Lodging Houses

At the end of the year there were 5 registered common lodging houses in the City, comprising 26 sleeping rooms and affording nightly accommodation for 280 males, 4 females and 4 couples.

The total number of persons accommodated during the year was 83,263. The nightly average was 229, representing 78·4 per cent of the accommodation available.

The following table shows the number of nights spent by single men, women, young persons and couples in common lodging houses during the year:—

Adults			8 to 21 years		Under 8 years	
Males	Females	Couples	Males	Females	Males	Females
82,175	1,088	—	—	—	—	—

All the houses have been lime-washed and cleansed in accordance with the requirements of the Byelaws made under the Public Health Act.

The total number of inspections made during the year was 92. There have been no cases of infectious disease reported during the year in any common lodging house. No difficulties have been experienced in gaining admittance, and it has not been necessary to resort to Police Court proceedings.

Hygiene in Factories

It is gratifying once more to report that the high standard of work previously reported has been maintained during the year under review, but it is regretted that much that had been planned to be done has had to be deferred as building licences could not be obtained.

A full report will be found in the Appendix giving in detail the work carried out during the year and supervised by inspectors of this Department, in order to remedy the defects referred to this Department by H.M. Inspector of Factories, those defects found by the inspectors of the Local Authority and to supervise those improvements carried out voluntarily. The Appendix also contains a copy of the report which is sent in the prescribed form to the Director of Statistics, Ministry of Labour and National Service.

In one case where proceedings were instituted during 1950 for failure to provide suitable and sufficient sanitary accommodation for the men employed in a factory, the case was adjourned to give the owner-occupier an opportunity to provide the required accommodation. The work was completed satisfactorily during 1951, and the defendant was discharged on payment of £3 3s. costs.

Hygiene in Workplaces

These include places where persons are employed otherwise than in domestic service, but do not include factories and shops.

A summary of the work executed in connection with workplaces will also be found in the Appendix alongside those for factories. In the matter of overcrowding and ventilation there appears to have been no cause for complaint, and in only one case was want of cleanliness found, and this was quickly rectified.

As in 1950, most of the work which has been carried out has been in connection with the sanitary accommodation provided for those employed in workplaces.

Outworkers

The register of outworkers was kept up to date and, where the lists of outworkers sent to this Authority included any person or persons whose place of employment was outside this district, the council in whose district those persons were employed was furnished with their names and addresses as required by Section 110 (2).

The number of outworkers' premises visited during the year was 440, which number includes all those newly registered during the year. In all cases the premises visited were found to be satisfactory.

A copy of the particulars required to be sent to the Director of Statistics, Ministry of Labour and National Service, will be found in the Appendix.

Rag Flock and Other Filling Materials Act, 1951

The Rag Flock Acts, 1911-28, were repealed when the Rag Flock and Other Filling Materials Act, 1951, came into operation on the 1st November. There are many kinds of filling materials used in the upholstering trade, yet, until the new Act became operative, the only statutory requirement was a standard of cleanliness for the material known as rag flock. This has been changed, however, and now there are standards of cleanliness laid down for all the filling materials coming within the meaning of the Act.

The aim of the Act is to secure the use of clean filling materials in any form of upholstering, including the stuffing or lining of bedding, toys and baby carriages, and, in addition to the required standards of cleanliness, certain types of premises have either to be registered or licensed with the Authority. With certain exceptions all premises have to be registered where any form of upholstering is carried out with the specified materials, and no rag flock can be used on registered premises unless it is obtained from premises which are licensed for the purpose of manufacture or storage.

As it was found that some firms were not conversant with the requirements of the Act, visits were made to all the premises likely to be affected. Two applications were received for licences with respect to premises and 19 for registration, which, on inspection, were found to be satisfactory. In all, 53 visits were made in connection with the Act. It was noted that, with the exception of the stuffing of bedding, rag flock was not used to any great extent in the trade.

At the year end the following premises had been entered in the register which has to be kept by the Authority:—

Section 2—registered premises	..	..	19
Section 6—licensed manufacturers	..	..	1
Section 7—licensed stores	..	..	1

Administration of the Shops Act, 1950

The administration of the Shops' Act is a complex problem. The consolidation of the Shops' Acts, 1912, 1913, 1934, 1936 and the Shops (Hours of Closing) Act, 1928, and the Young Persons (Employment) Act, 1938, have not made the task any easier. The main provisions of these enactments are concerned principally with the hours of employment of young persons between 14 and 18 years, and with the prescribed closing hours and half-day closing. The hours of closing and conditions of employment have a bearing upon the health of persons employed, particularly young persons. The Act also deals with the ventilation, heating, lighting, sanitary accommodation, washing facilities and provisions for the taking of meals on the premises. The Act also deals with the kind of trading which can be carried out on Sunday and provides for the shop assistants having compensatory holidays if they are engaged in Sunday trade. Provision is also made for persons who have a conscientious objection to working on the Sabbath (Saturday) to open their shops on Sunday. This principally applies to persons of the Jewish religion.

The time has arrived when legislation should provide for the registration of all shops and should require that these premises be suitable for use for the purpose for which they are proposed to be used. This is particularly important in premises where food is handled, stored or prepared.

The total number of shops on the register was 7,355, including industrial and school canteens and nurseries. The number of shops visited in which young persons were employed was 93, employing 53 males and 68 females. This is a considerable reduction in the number of young persons employed in shops from last year. The number of shops employing assistants was 1,847—1,338 males and 1,084 females.

Exhibitions

During the year two applications were received to hold exhibitions and in both cases the City Council granted the applications.

Hawkers and Pedlars

The total number of hawkers and pedlars licensed with the City Police is now 460.

Prosecutions under the Shops' Act, 1950—Sunday Trading

During the year 3 persons were prosecuted for selling non-exempted articles on a Sunday, and fines of 20/-, 10/- and 5/- were imposed respectively.

The total number and variety of shops on the register are as follows:—

Bakers	363
Boot Repairers and Grindery..	178
Butchers	347
Chemists and Druggists	127
China and Glassware	19
Confectioners	437
Drapers	220
Electrical and Wireless	127
Fish, Fruit and Game	368
Fish Friers	300

Florists	31
Furnishers	128
Grocers	942
Hardware and Ironmongery	171
Hairdressers	383
Jewellers	44
Motors, Cycles and Petrol	132
Newsagents	282
Pawnbrokers	20
Photographers	12
Public Houses	409
Restaurants, Cafes and Snack Bars	286
Sweets and Tobacco	362
Tripe Dealers	43
Wearing Apparel	452
Wallpapers and Decorators	56
Wholesale Shops and Warehouses	289
Potato Crisps	2
Clubs	120
Departmental Stores	7
Miscellaneous Trades	204
Industrial Canteens	329
School Dining Rooms and Kitchens.. .. .	150

Rodent Control

During the year 2,330 properties were inspected and 1,139 were found to be infested by rodents. Of these, 576 were infested by mice and 563 were infested by rats. Of this latter, 36 were classed as major infestations. Dealing first with the 1,103 minor infestations, 1,668 ounces of poison were consumed. The number of bodies found was 372, but with the system adopted only a percentage of the bodies are recovered, and working on the formula laid down by the Ministry, it was estimated that 4,172 rodents were killed.

In dealing with the 36 major infestations, 209 pounds of bait were used and 170 ounces of poison were consumed. The number of bodies found was 72 and the estimated kill was 425.

From April 1st to October 1st work proceeded in regard to the rats in the public sewers. Originally the City was divided into 33 areas; 6,271 manholes were examined and baited and 1,670 manholes were poisoned.

In all this work the bait used was sausage rusks, and in the vast majority of cases the poison used was zinc phosphide. Where a second treatment was necessary, bread mash and arsenic were sometimes used as alternatives. The number of routine visits also made to Corporation properties where infestation is likely (school dining centres and canteens, markets and abattoir, tramway depot canteens and Corporation tips, etc.) was 216, and infestations found were treated forthwith.

Post-mortem examinations have been performed on numbers of rats and mice killed in the City during the year as a routine check on the bowel organisms which may be carried by these dangerous reservoirs of infection. After disinfestation, 153 premises were rat proofed.

Smoke Abatement

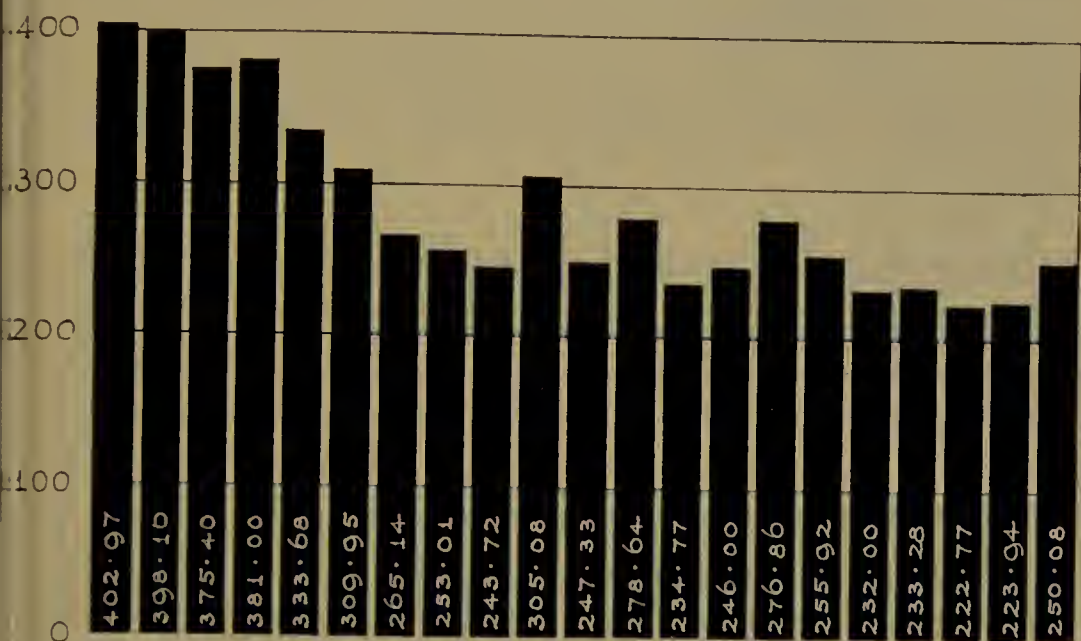
During the year under review 14 complaints of nuisances from smoke and 3 complaints of nuisances from grit were received and investigated. The number of observations made of 30 minutes or more was 209, and in 16 cases black smoke was seen to be emitted for more than 3 minutes in the aggregate during a continuous period of 30 minutes.

In only 2 cases was it considered necessary to serve statutory notices. In all other cases the visit, the advice given, and the verbal warning served to effect the desired improvement.

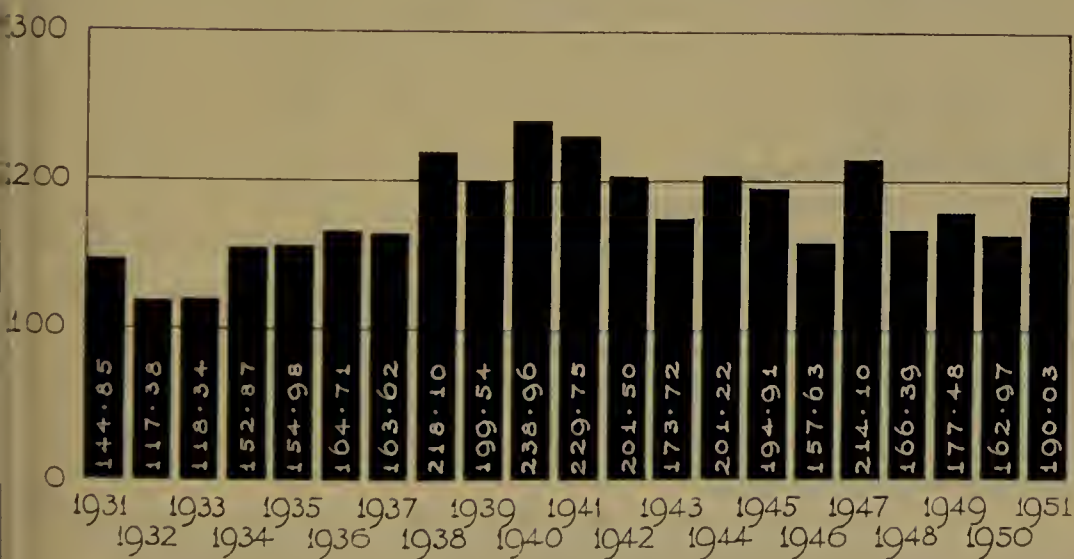
In 1 case, where the engineer attributed the excessive smoke to the unsuitable coal supplied, the firm called in the services of the Ministry of Fuel and Power, who sent a stoker-demonstrator to the boiler-house to make a trial and give advice. Subsequent observations have shown the chimney to be satisfactory.

There were also 2 cases where the nuisances arose from chimneys that were emitting smoke which, although not black, was a nuisance because of the low height of the chimneys. The assistance of the Ministry of Fuel and Power was requested with a view to having the fuel changed from coal to coke. Visits were made, and, as a result, the fuel was changed, and there has since been no further complaint.

ATMOSPHERIC POLLUTION ANNUAL DEPOSITS AT BRADFORD CENTRAL AND BRADFORD NORTH, 1931-1951



CENTRAL



NORTH

Fig. 16

Measurement of Atmospheric Pollution

The deposit gauges at the 5 stations have been maintained during the year, and in addition at each of those 5 stations a further piece of apparatus has been in operation since 1st August, 1951. This apparatus enables the City Analyst to ascertain and determine the amount of sulphur dioxide which is deposited on the fabric of buildings, exposed metals, etc.

A further instrument has been installed in the Town Hall. This has been in continuous operation since the 18th October, 1951. It enables the operator to measure the mean daily concentration of (1) sulphur in, or the acidity of, the atmosphere, and (2) the mean daily concentration of smoke. It also produces a visible stain on filter papers which show at once the serious effect of the burning of raw coal on the air we breathe, more particularly on dull, heavy or foggy days. It stresses the urgent need to make a more efficient use of our gradually diminishing reserves of coal by extracting the valuable by-products. The resultant smokeless fuel thus produced can be burned on the domestic grate without the discharge to atmosphere of the tarry substances contained in the raw coal.

Deposit Gauges

The monthly reports received from the City Analyst show that there has been a total increase in the annual deposit which averages 10 per cent above that for 1950. The increases are as follows, (a) tarry matter—100 per cent, (b) combustible matter other than tar—17 per cent, (c) ash—4·6 per cent, (d) sulphate—21 per cent, (e) calcium. The only decrease is in the chlorine.

Of all these polluting substances only (a) and (b) are the result of imperfect combustion; (c) is inherent in, or the result of, the perfect combustion of the fuel, and (d) is dependent on the amount of sulphur in the fuel and is unavoidable.

ATMOSPHERIC POLLUTION ANNUAL DEPOSIT AS MEASURED AT FIVE STATIONS—1951

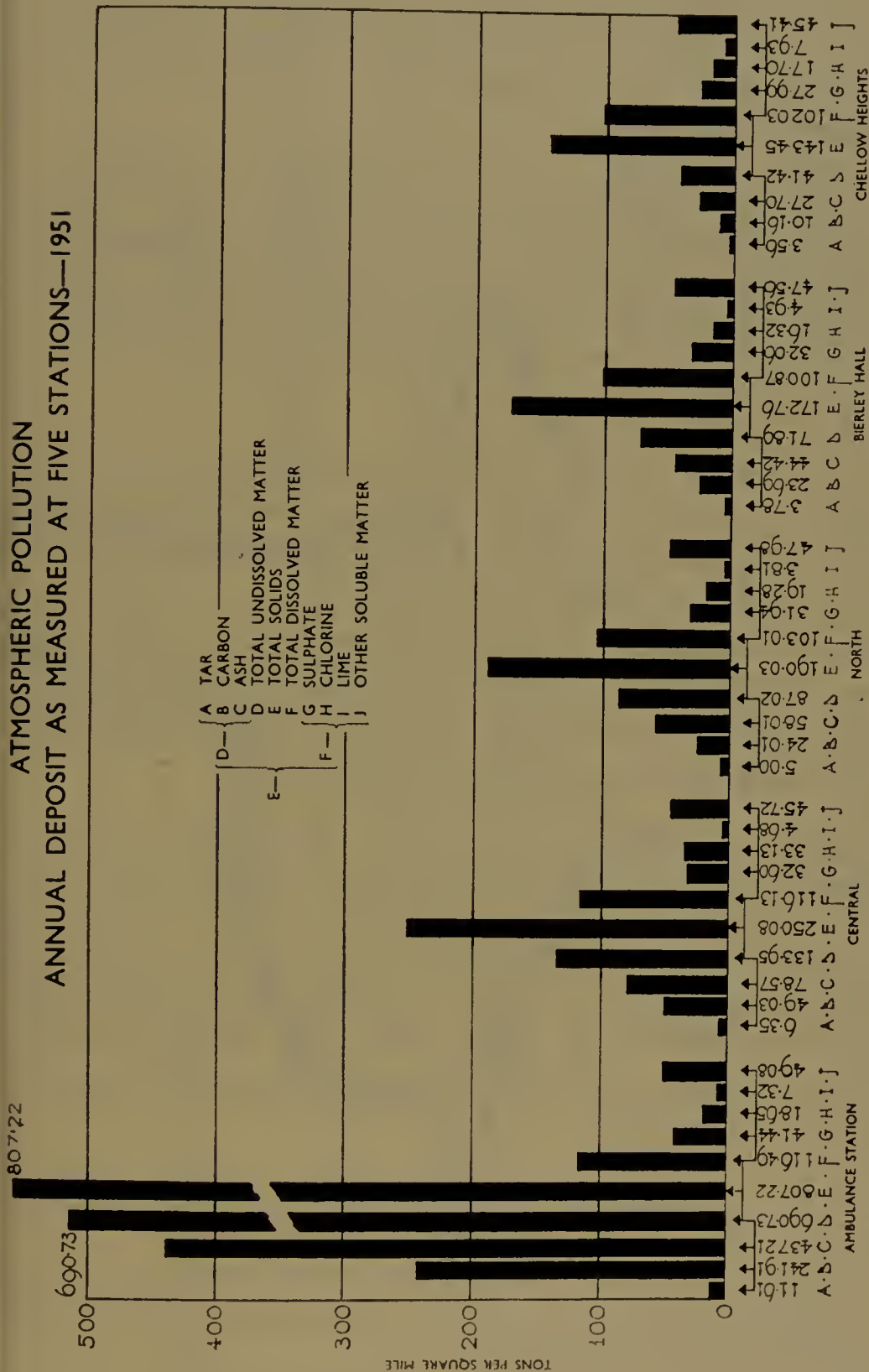


Fig. 17

The calcium might be accounted for by agriculture, i.e., lime spreading, and the chlorine by the volatilization of common salt, i.e., in the process of the glazing of stoneware goods or as a flux in smelting of certain non-ferrous metals.

What might be considered the most serious increase in the atmospheric pollution is that of the tarry matter, which has doubled in quantity. This tarry matter is that constituent of bituminous coal which is driven off at low temperatures. Under certain conditions—as when fires are “banked” to burn for long periods—the material is not consumed, but is discharged as tarry matter.

It is known that a large number of smokeless fuel fires have been installed in dwellinghouses. With fire-grates of this type the draught can be finely regulated so that with slack coal they can be banked to burn all night, and in many cases this is being done. Such slow combustion will no doubt contribute very largely to the tarry matter and the soot found in the atmosphere. Users of such grates would assist in reducing, instead of increasing, this tar and soot if they would use in them the fuel they were intended to burn—smokeless fuel.

Tables 14 and 15 in the Appendix show annual deposits at the 5 stations for several years, and mean monthly deposits during 1951.

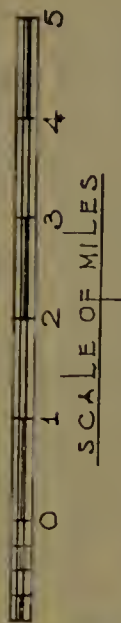
Fig. 16 shows the annual deposits at Bradford Central and Bradford North gauges in the period 1931–51. Fig. 17 gives an analysis of the annual deposit at the five stations during 1951. Fig. 18 shows the relative positions of the various atmospheric pollution instruments in the City.

Lead Peroxide Instruments

Analyses of the samples collected at the five stations are given below in milligrams of SO_3 per day per 100 sq. cms. of lead peroxide for the months of August to December:—

POSITIONS OF DEPOSIT GAUGES, ETC.

CONCENTRATIONS OF INDUSTRY



PREVAILING WINDS

DEPOSIT GAUGES:—

- 1 CHELOW HEIGHTS
- 2 NORTH
- 3 AMBULANCE STATION
- 4 CENTRAL
- 5 BIERLEY HALL

AIR-FILTER INSTRUMENT:—

- x TOWN HALL

Fig. 18

Station		Aug.	Sept.	Oct.	Nov.	Dec.
Britannia House	..	1.26	1.89	3.23	2.76	2.97
Heaton Reservoir	..	0.97	1.13	2.06	2.04	2.17
Bierley Hospital	..	0.63	0.77	1.54	1.42	2.05
Chellow Heights	..	1.08	1.01	2.36	1.75	2.37
Ambulance Station	..	0.73	0.77	1.17	1.29	1.56

Measurement of Sulphur-dioxide and Smoke by the Volumetric Apparatus

The figures given below represent the highest, the average, and the lowest daily mean concentration of smoke and sulphur-dioxide or the acidity of the atmosphere from the 18th October, 1951, to 31st December, 1951. They also show the percentage of days of each month when the SO₂ was (1) below 0.1, (2) between 0.1 and 0.2, and (3) above 0.2 parts per million.

CONCENTRATION OF SULPHUR AND SMOKE IN THE ATMOSPHERE

Month	Smoke (expressed as milligrams per 100 cubic metres)			Sulphur-dioxide (expressed as parts per 100 million parts of air)			Percentage of days (SO ₂)		
	High- est Value	Aver- age Value	Low- est Value	High- est Value	Aver- age Value	Low- est Value	Above 0.2	0.1 0.2	Below 0.1
18/31							%	%	%
October ..	100.79	43.79	15.91	39.56	18.15	0.56	44.0	39.0	17.0
November	72.25	34.73	13.13	20.97	12.06	6.47	6.6	56.7	36.7
December	131.06	42.93	13.13	54.67	14.17	5.23	45.2	38.7	16.1

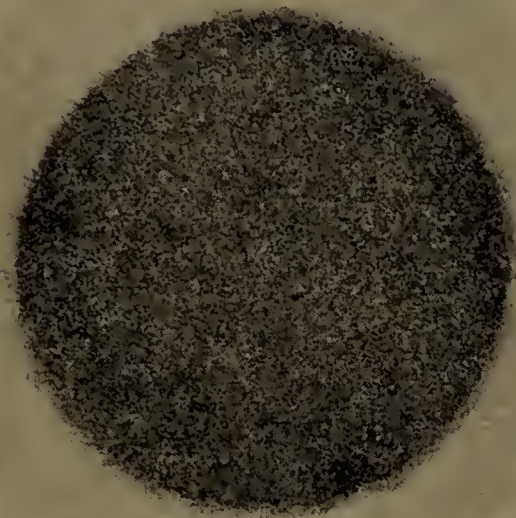
Reproductions of filter papers showing the highest and lowest concentration of smoke in December are shown in Fig. 19. The stain is the result of passing approximately 85 cu. ft. of air drawn from outside the building through the filter in 24 hours. This volume of air is inspired by the average person in about four-and-a-half hours, so that between five and six times the amount passed through the machine is inhaled every twenty-four hours.

REPRODUCTIONS OF
FILTER PAPERS SHOWING
HIGHEST AND LOWEST
CONCENTRATION OF
SMOKE

BRADFORD, DECEMBER
1951

12/13th December, 1951

Smoke 1. 3106 mg/m³
SO₂ . 5467 p.p.m.



6 cu. ft. of air in 24 hours)

Calm, frost and some fog.

3/4th December, 1951

Smoke .1313 mg/m³
SO₂ .0584 p.p.m.

3 cu. ft. of air in 24 hours)

Housing

It will be some years before slum clearance on the grand scale can again be initiated, and, indeed, it is not likely that areas as large as the pre-war Broomfields district will again be dealt with as one unit. For in Bradford, with a third of the total number of dwellings back-to-back in construction, bad housing exists in all parts of the City and is not confined to specified tracts in the industrial sections.

The City grew by the absorption of the villages on its perimeter, each with its own woollen mills and contiguous workers' cottages. Much new development, of course, has taken place over the years, but small groups of old cottages are scattered everywhere, in all degrees of disrepair, and many will eventually have to be demolished and replaced, either as individually unfit houses or, more likely, as clearance areas of from 5 to 40 houses each.

Nevertheless there are groups of dwellings within the inner ring road which are already recorded as potential clearance areas, and it is hoped that some may soon be dealt with as the demand from homeless families is eased by the provision of new houses. The clearance of such areas will in some cases provide land on which dwellings can be provided for those families who desire homes in close proximity to their work in the City.

It is not possible at the present time to visualise the demolition of all the back-to-back houses, for there are all types ranging from cottages built back-to-back in continuous rows with closets and dustbins at the end of the block, through the type with passages and common yards at the rear to the double-fronted (side scullery) type with three sleeping rooms. In many of the latter the main defect is the back-to-back construction, for often they are owned by the occupiers, who have installed bathrooms, hot water services and inside water closets.

New houses are to-day so expensive that in future demolition must be strictly related to the policy of taking the worst houses first, whether they be in small groups or large, and large scale re-development irres-

pective of the condition of individual structures will be out of the question for some years.

Increasing trouble is being experienced with individual back-to-back houses. Most of them are built of stone and the cavity is filled with rubble. The entry of moisture results in movement in frosty weather, and bulges develop. The cost of rebuilding the front wall is often out of proportion to the value of the property and consequently beyond the scope of action under Section 9 of the Housing Act, 1936. The only alternative is demolition, and the removal of such dangerous structures, often from the centre of long streets of similar houses, creates other problems such as the weather-proofing of adjoining houses with newly exposed walls not constructed to withstand the weather.

Even if it is possible to allocate only two hundred houses a year from the building programme for slum clearance the adoption of such a scheme would be welcomed, for it would go a long way in assisting the initiation of a policy of slum clearance applied to the worst houses. The Public Health Department exists to prevent disease, and the best preventative, apart from adequate nutrition, is a sound house in which a proper family life can be developed. Many houses can be kept reasonably sound by the enforcement of repairs, but others must be replaced, and with some this need is urgent.

Housing Inspections

Details of the work carried out under Parts 2, 3 and 4 of the Housing Act, 1936, are shown in the Appendix. Wherever possible, within the limitation of cost imposed by Section 9, repair notices have been served, but in other cases it has been necessary to make representations under Section 11. No undertakings having been received, demolition orders have had to be made in each case.

In many instances, however, closing orders were made under the Bradford Corporation Gas and Improvement Act, 1871, instead of invoking demolition under the Housing Act. Thus premises totally

unfit for such purpose were prevented from being used as dwellings without interfering with interlocked properties, but, unfortunately, some owners elected to demolish when the houses became vacant, thus defeating the object of the action taken and, in some cases, causing decay to develop in adjoining properties.

During the year it became necessary to represent a further 30 houses in Tumbling Hill Street as a clearance area because of general disrepair and the dangerous condition of some of the structures. This is a further development of the scheme inaugurated in the previous year.

The Department has successfully represented many cases of over-charging to the Tribunal established under the Furnished Houses (Rent Control) Act, 1946, and reductions have been thereby effected. In 2 cases prosecutions were undertaken where it was ascertained that rents in excess of those fixed by the Tribunal were being charged. Fines were imposed and repayment of excess charged was enforced by the Court.

Rehousing Work

It has long been the practice to carry out an inspection of vacant Corporation houses on estates built for slum clearance prior to re-letting, and also to inspect and disinfest, where necessary, the effects of persons living in houses which were the subject of demolition or closing orders before removal to such houses, and an inspection is now made of the effects of all persons who are applicants for tenancies of Corporation houses when the applicant qualifies under the "points" scheme for a house. Further, an inspection is made of the houses involved when tenants make application for transfers or exchanges.

To this end, during the year 1951, 1,616 visits were made by the Housing Inspectors. Of these, 1,163 inspections were made of the premises occupied by applicants for Corporation houses, and 224 were found to be verminous. The tenants of 148 of these verminous houses were subsequently rehoused, and disinfestation was carried out in each case, prior to removal.

The number of inspections made of Corporation houses involved in transfers or exchanges was 320, and 11 were found to be verminous. Unoccupied houses inspected numbered 133, and 17 were found to be verminous. These houses were disinfested prior to re-letting. In all, 110 visits were abortive, for in many cases the applicant had gone away without informing the Estate Office of the change of address, or, in the case of transfers, the applicant had suffered a change of mind.

Bradford Corporation Act, 1949—Part IX

Establishments for Massage or Special Treatment

During the course of the year, and before the Annual Licensing Meeting of the Health Committee, 7 new licences were granted for massage or special treatment establishments, bringing the total number of current licences up to 96. Two transfers were granted and 2 new applications for licences were withdrawn by the applicants.

The byelaws made under Section 63 (1) of the Act, regulating the conduct of these establishments, came into force on the 1st January, 1951, and all establishments were re-inspected before the Annual Licensing Meeting, when it was reported that 51 breaches of the byelaws in 37 establishments had been observed.

These offences consisted mainly of the failure of the licensed persons to exhibit copies of the byelaws, to exhibit the scales of charges, to keep the required treatment or staff records, and to notify increases in the scales of charges to the Corporation.

Verbal warnings were given at the time to all offenders, which were followed up by warning letters from the Town Clerk, threatening legal proceedings if the offences continued.

Subsequently all these establishments were re-visited, and in all cases the licensed persons had taken the necessary remedial action. Consequently it was not found necessary to institute legal proceedings. In this connection it is observed that the Court has power, in addition to,

or in lieu of, inflicting a penalty for non-compliance with the byelaws, to make an order revoking the licence (sub-section 3, Section 65 of the Act).

Of the 96 current licences in force, 90 applications were received for renewal and were considered at the Annual Licensing Meeting of the Health Committee on the 31st October, 1951. All the applications were granted, and of the remaining 6 cases, 2 transfers of licences were granted to other approved premises, 2 licensed persons had ceased to practice and 2 licensed persons had ceased to carry out all treatments, which were subject to licensing, on their establishments. One new application for a licence to practise chiropody and massage was refused by the Committee, due to the inadequate training and qualifications of the applicant. A further new application received after the date of the Annual Licensing Meeting, for a licence to practise chiropody, was withdrawn by the applicant.

Summarising the above information, the total number of current licences at the end of the year was 92, which includes 4 transfers; 3 applications were withdrawn, 4 licences lapsed, and 1 application was refused.

With regard to "registered members" under the provisions of Section 68 of the Act, which exempts registered members of the Chartered Society of Physiotherapists from licensing, subject to the proviso that a certificate as to their suitability, signed by two registered medical practitioners, be lodged with the Corporation, the necessary certificates were received from the 3 such establishments in the City.

Generally, the establishments were found to be properly conducted, the equipment adequate and suitable, and a good standard of hygiene was maintained. In 1 case only, the cleanliness of the treatment room in the establishment was found to be unsatisfactory. A verbal warning was given to the licensed person, and subsequently a further inspection revealed a much improved state of cleanliness.

Hairdressers and Barbers

Byelaws have been made under Section 28 of the Bradford Corporation Act, 1949, and during the year there were only 5 contraventions, 1 concerning the condition of the premises and 4 the instruments. These were of a minor character and the proprietors received verbal warning.

During the year 23 additional premises were registered with the Town Clerk as hairdressers and 3 had ceased business. There are now 383 premises on the register, and from January to December 1951, 232 visits were made to the above premises.

Appendix

Table 1 *Vital Statistics of Whole District during 1951 and Previous Years*

Year	Popu- lation estimated to Middle of each Year	BIRTHS		TOTAL DEATHS REGISTERED IN THE DISTRICT		TRANSFERABLE DEATHS		NET DEATHS BELONGING TO THE DISTRICT					
		Un- corrected Numbers	NET Number	Rate	Number	Rate	of Non- residents registered in the District	of Residents not registered in the District	Under 1 Year of Age		At all Ages		
									Number	Rate	Number	Rate	Number	Rate
1944	..	261,890	4,823	4,645	16.15	4,230	16.16	447	151	249	53	3,934	13.61
1945	..	262,660	4,313	4,136	15.84	4,169	15.87	423	156	271	65	3,902	14.90
1946	..	279,040	5,871	5,404	19.39	4,319	14.46	471	135	265	49	4,035	14.4
1947	..	284,900	6,473	6,334	22.23	4,288	14.73	494	151	380	54	4,439	15.58
1948	..	288,500	5,599	5,439	18.85	3,871	13.41	467	145	235	43	3,871	13.41
1949	..	291,600	5,344	5,048	17.3	4,637	15.9	592	178	191	37	4,223	14.50
1950	..	294,300	5,111	4,906	16.7	4,670	15.8	497	153	185	38	4,173	14.2
1951	..	289,800	4,919	4,769	16.4	4,966	17.1	731	179	208	43	4,456	15.4

Table 2 Notifiable Infectious Diseases—1951

CASES NOTIFIED IN WHOLE DISTRICT										TOTAL CASES NOTIFIED IN EACH LOCALITY																				
NOTIFIABLE DISEASE	At all Ages	At Ages—Years						Allerton	Bolton	Bradford Moor	Clayton	East Bowling	Eccleshill	Exchange	Great Horton	Heaton	Idle	Listerhills	Little Horton	Manningham	North Bierley E	North Bierley W	North East	South	Thornthorn	Tong	West Bowling			
		Under 1	1—5	5—15	15—25	25—45	45—65																					Over 65		
Smallpox	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Diphtheria	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Erysipelas	..	103	1	5	4	10	24	36	23	4	5	2	4	3	6	7	2	1	4	2	6	3	2	29	4	5	7	2	5	
Scarlet Fever	..	291	2	99	161	13	16	—	—	14	7	11	12	19	16	7	14	12	6	10	19	12	14	23	11	12	27	23	22	
Paratyphoid Fever	..	62	—	—	58	2	1	1	—	3	4	3	2	4	3	4	3	3	1	2	4	4	2	4	5	1	4	—	6	
Puerperal Fever	..	2	—	—	—	—	2	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	
Puerperal Pyrexia	..	13	—	—	—	3	10	—	—	—	—	—	—	—	2	1	—	—	—	3	1	—	—	1	3	—	1	1	—	
Cerebro-Spinal Meningitis	..	3	2	1	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Poliomyelitis	..	12	—	1	2	2	5	2	—	1	1	1	—	1	—	2	—	—	1	—	—	4	—	—	—	—	—	—	1	—
Ophthalmia Neonatorum	..	12	12	—	—	—	—	—	—	—	—	—	—	—	1	5	1	—	—	—	—	—	3	2	—	—	—	—	—	—
Measles	..	3,772	154,264	930	29	17	2	—	—	125	185	162	138	186	303	131	136	192	139	122	236	160	215	261	339	256	128	167	191	—
German Measles	..	96	8	49	37	2	—	—	—	3	2	3	4	4	4	2	8	7	1	6	6	5	10	10	7	12	—	—	2	—
Whooping Cough	..	1,273	124	852	281	3	8	4	1	31	54	49	52	73	33	34	86	40	24	81	96	66	128	123	58	72	62	55	56	—
Chicken Pox	..	2,029	54	1,057	902	11	5	—	—	97	89	52	83	81	57	70	209	146	101	116	136	108	79	218	74	78	55	67	113	—
Pulmonary Tuberculosis	..	230	2	4	16	46	90	55	17	10	10	8	5	12	17	18	8	7	9	19	16	24	11	7	11	16	7	9	6	—
Non-pulmonary Tuberculosis	..	58	1	8	10	15	16	7	1	2	5	—	1	4	7	1	2	3	—	6	3	1	3	7	2	3	2	2	4	—
Infective Enteritis	..	372	103	120	66	10	34	21	18	10	5	2	17	9	8	23	13	4	3	30	75	15	8	69	18	26	4	3	30	—
Dysentery	..	322	15	154	69	12	37	12	23	25	16	6	9	8	7	42	20	26	—	2	56	16	4	32	3	17	—	—	33	—
Salmonella Infections	..	37	6	14	7	3	6	1	—	1	1	—	1	1	1	4	3	—	2	4	1	1	5	7	1	1	—	—	3	—
Food Poisoning	..	4	—	—	—	2	2	—	—	—	—	—	—	1	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—
Anthrax	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Polio-Encephalitis	..	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Encephalitis Lethargica	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia	..	494	44	93	45	15	79	106	112	12	20	11	12	26	16	21	23	13	5	30	53	16	40	65	34	33	33	17	14	—
Malaria	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	..	9,186	528	5,097	2,589	178	352	247	195	339	404	310	340	433	479	371	531	455	295	431	714	432	527	855	571	537	329	346	487	—

Table 3 *Causes of Death at Different Periods of Life during the Year 1951*

[illegible]

Table 4 Public Health (Tuberculosis) Regulations 1930

Summary of Notifications during the period from 1st January 1951 to the 31st December 1951

NUMBER OF NOTIFICATIONS ON FORM A														
Age Periods	Primary Notifications										Total Notifications (i.e., including cases previously notified by other doctors)			
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65		65 and upwards	Total	
Pulmonary:														
Males	..	1	2	4	5	11	10	30	26	24	18	12	143	158
Females	..	1	2	2	5	12	13	24	10	6	7	5	87	89
Non-pulmonary:														
Males	..	1	5	3	1	6	5	3	5	—	3	—	32	36
Females	..	—	3	4	3	1	3	7	1	3	1	1	27	31

Table 5 *Vital Statistics in Bradford from 1920*

Year		Population	Birth Rate	Death Rate	Zymotic Death Rate	Infantile Mortality Rate
1920	..	293,979	20.52	13.31	0.42	93
1921	..	291,100	19.57	13.72	0.66	109
1922	..	291,300	17.92	14.02	0.36	87
1923	..	290,800	18.19	13.75	0.48	78
1924	..	290,200	16.94	14.86	0.31	92
1925	..	290,200	16.63	13.97	0.65	95
1926	..	288,700	16.31	13.58	0.47	92
1927	..	293,200	14.73	14.57	0.52	92
1928	..	288,500	15.32	13.60	0.38	69
1929	..	289,200	15.03	15.66	0.50	80
1930	..	293,254	14.92	13.45	0.44	75
1931	..	300,900	13.56	14.21	0.24	71
1932	..	296,300	13.56	13.89	0.26	75
1933	..	295,100	13.22	14.68	0.32	79
1934	..	293,650	13.68	13.35	0.34	62
1935	..	292,200	13.55	14.28	0.38	64
1936	..	290,500	13.42	14.93	0.43	82
1937	..	289,510	13.85	14.64	0.34	69
1938	..	288,700	13.51	13.76	0.26	58
1939	..	287,500	12.42	14.91	0.19	61
1940	..	*271,700	12.81	15.85	0.20	68
1941	..	*270,310	12.35	14.81	0.18	68
1942	..	*264,800	13.90	13.29	0.20	50
1943	..	*260,300	14.46	14.43	0.18	58
1944	..	*261,890	16.15	13.61	0.17	53
1945	..	*262,660	15.84	14.90	0.19	65
1946	..	*279,040	19.39	14.46	0.15	49
1947	..	284,900	22.23	14.73	0.30	59
1948	..	288,500	18.84	13.41	0.14	43
1949	..	291,600	17.3	14.50	0.12	37
1950	..	294,300	16.7	14.2	0.15	38
1951	..	289,800	16.4	15.4	0.09	43

* Civil Population

Table 6 *Infantile Mortality, 1923-51*

				Deaths under 1 Year of Age per 1,000 Births		
Year				Total	Diarrhoeal Diseases	Total less Diarrhoeal Diseases
1923	..	..	..	78	4	74
1924	..	..	..	92	6	86
1925	..	..	..	95	7	88
1926	..	..	..	92	13	79
1927	..	..	..	92	7	85
1928	..	..	..	69	6	63
1929	..	..	..	80	5	75
1930	..	..	..	75	5	70
1931	..	..	..	71	5	66
1932	..	..	..	75	6	69
1933	..	..	..	79	8	71
1934	..	..	..	62	4	58
1935	..	..	..	64	5	59
1936	..	..	..	82	9	73
1937	..	..	..	69	7	62
1938	..	..	..	58	5	53
1939	..	..	..	61	7	54
1940	..	..	..	68	4	64
1941	..	..	..	68	6	62
1942	..	..	..	50	4	46
1943	..	..	..	51	3	48
1944	..	..	..	53	4	49
1945	..	..	..	65	9	54
1946	..	..	..	49	6	43
1947	..	..	..	59	10	49
1948	..	..	..	43	5	38
1949	..	..	..	37	4	33
1950	..	..	..	38	4	34
1951	..	..	..	43	3	40

Table 7 *Infantile Mortality. Net Deaths from Stated Causes under
1 Year of Age, 1950 and 1951*

International List Nos.		CAUSE OF DEATH	1950	1951
001-008	Pulmonary Tuberculosis	.. .. .	—	1
010-019	Non-pulmonary Tuberculosis	.. .. .	1	—
045-3	Bacillary Dysentery	.. .. .	—	1
056	Whooping Cough	.. .. .	8	—
057	Meningococcal Infections	.. .. .	1	—
085	Measles	.. .. .	—	2
199	Malignant Neoplasms	.. .. .	1	—
241	Asthma	.. .. .	—	1
296	Purpura	.. .. .	—	1
340	Meningitis (non-tubercular and non-meningo- coccal)	.. .. .	—	1
355	Polio-encephalitis	.. .. .	1	—
391	Otitis media, acute	.. .. .	1	—
480-483	Influenza	.. .. .	—	2
490-493	Pneumonia	.. .. .	23	39
500-502	Bronchitis	.. .. .	6	7
521	Lung Abscess	.. .. .	—	1
522	Pulmonary congestion	.. .. .	—	1
570	Intestinal obstruction	.. .. .	2	1
571	Gastro-enteritis (over 4 weeks)	.. .. .	13	12
701	Eczema	.. .. .	—	1
750	Anencephaly	.. .. .	1	2
751	Spina bifida and meningocele	.. .. .	9	3
752	Hydrocephalus	.. .. .	1	—
753	Congenital malformations of nervous system	.. .. .	—	1
754	" " " circulatory system	.. .. .	7	6
755	" Palate	.. .. .	1	—
756	" malformations of digestive system	.. .. .	1	4
757	" " " the genito-urinary tract	.. .. .	—	1
760-761	Birth injuries	.. .. .	4	13
760-5	Birth injuries and immaturity	.. .. .	1	6
762	Post-natal asphyxia and atelectasis	.. .. .	12	11
762-5	" " " immaturity	.. .. .	4	1
763	Pneumonia of the newborn	.. .. .	9	17
763-5	" and immaturity	.. .. .	2	3
764	Diarrhoea of the newborn	.. .. .	4	4
764-5	" and immaturity	.. .. .	2	2
769-5	Arising from Maternal Toxaemia and immaturity	.. .. .	3	1
770	Haemolytic disease of the newborn	.. .. .	3	2
772	Nutritional maladjustments	.. .. .	4	2
772-5	" " and immaturity	.. .. .	1	—
774	Immaturity with mention of other conditions	.. .. .	—	7
776	Immaturity, unqualified	.. .. .	43	34
780-2	Convulsions, etc.	.. .. .	2	4
E892	Asphyxia due to carbon monoxide poisoning	.. .. .	—	1
E917	Scalds	.. .. .	1	—
E921	Asphyxia by vomiting	.. .. .	10	3
E924	Overlaying, etc.	.. .. .	—	4
E926	Lack of care	.. .. .	—	1
E936	Fracture of the skull	.. .. .	1	—
E983	Infanticide by smothering	.. .. .	1	—
	Other causes	.. .. .	1	1

Table 8 *Vital Statistics 1951—Infantile, according to Wards*

Ward	Population (Adult and Infantile)	Live Births	Birth Rate	Stillbirths	Stillbirth Rate	Infant Deaths	Infantile Mortality Rate	Neo-Natal Deaths	Neo-Natal Mortality Rate	Post-Natal Deaths	Post-Natal Mortality Rate
Allerton ..	14,888	146	9.8	2	13.5	3	20.5	1	6.8	2	13.7
Bolton ..	12,154	233	19.1	6	25.1	12	51.5	7	30.0	5	21.5
Bradford Moor	16,518	217	13.1	5	22.5	12	55.3	4	18.4	8	36.9
Clayton ..	12,439	163	13.1	1	6.1	9	55.2	8	49.1	1	6.1
East Bowling	14,253	269	18.8	8	28.8	15	55.7	4	14.8	11	40.9
Eccleshill ..	17,645	330	18.7	4	11.9	8	24.2	3	9.1	5	15.1
Exchange ..	12,949	243	18.7	10	39.5	14	57.6	6	24.7	8	32.9
Great Horton	16,307	208	12.7	5	23.4	6	28.8	5	24.0	1	4.8
Heaton ..	14,672	256	17.5	5	19.1	12	46.8	5	19.5	7	27.3
Idle	10,807	121	11.2	4	32.0	5	41.3	4	33.0	1	8.3
Listerhills ..	14,828	298	20.1	11	35.6	16	53.6	12	40.2	4	13.4
Little Horton	12,971	326	25.1	10	29.7	14	42.9	8	24.5	6	18.4
Manningham ..	14,952	277	18.5	4	14.2	10	36.1	6	21.6	4	14.5
North Bierley East ..	15,959	207	12.9	4	18.9	14	67.6	5	24.1	9	43.5
North Bierley West ..	17,814	281	15.8	6	20.9	7	24.9	4	14.2	3	10.7
North East ..	14,136	295	20.8	4	13.3	18	61.0	7	23.7	11	37.3
South	13,907	284	20.4	10	34.0	14	49.2	5	17.6	9	31.6
Thornton ..	11,864	153	12.9	2	12.9	3	19.6	—	0.0	3	19.6
Tong	14,274	218	15.1	5	22.4	12	55.0	8	36.7	4	18.3
West Bowling	16,463	244	14.8	11	43.1	4	16.4	1	4.1	3	12.3
	289,800	4,769	16.4	117	24.0	208	43.6	103	21.6	105	22.0

Table 9 *Infantile Mortality 1951**Net deaths, at various ages under 1 year of age, in Wards*

Ward	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 1 month	1—3 months	3—6 months	6—9 months	9—12 months	Total under 1 year	Neo-Natal Mortality Rate per 1,000 live births	Infantile Mortality Rate per 1,000 live births
Allerton	1	—	—	—	1	—	1	1	—	3	6.8	20.5
Bolton	5	—	2	—	7	1	2	1	1	12	30.0	51.5
Bradford Moor ..	4	—	—	—	4	2	3	2	1	12	18.4	55.3
Clayton	6	—	1	1	8	—	—	—	1	9	49.0	55.2
East Bowling ..	2	2	—	—	4	5	3	3	—	15	14.8	55.7
Eccleshill ..	1	1	1	—	3	1	2	2	—	8	9.1	24.2
Exchange ..	6	—	—	—	6	1	4	—	3	14	24.7	57.6
Great Horton ..	4	—	—	1	5	1	—	—	—	6	24.0	28.8
Heaton	3	—	—	2	5	5	2	—	—	12	19.5	46.8
Idle	3	—	1	—	4	1	—	—	—	5	33.0	41.3
Listerhills ..	8	2	1	1	12	4	—	—	—	16	40.2	53.6
Little Horton ..	7	—	1	—	8	1	4	—	1	14	24.5	42.9
Manningham ..	4	1	—	1	6	1	1	1	1	10	21.6	36.1
North Bierley East	5	—	—	—	5	3	3	2	1	14	24.1	67.6
North Bierley West	3	1	—	—	4	1	1	1	—	7	14.2	24.9
North East ..	6	1	—	—	7	5	3	2	1	18	23.7	61.0
South	3	—	1	1	5	2	2	4	1	14	17.6	49.2
Thornton ..	—	—	—	—	—	1	1	—	1	3	0.0	19.6
Tong	7	1	—	—	8	1	2	—	1	12	36.6	55.0
West Bowling ..	1	—	—	—	1	1	2	—	—	4	4.1	16.4
Total ..	79	9	8	7	103	37	36	19	13	208	21.6	43.6

Table 10 *Infantile Mortality Rates—Bradford, England and Wales—
1950 and 1951*

			1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1950	Bradford	.. ..	46	35	30	38
	England and Wales	..	37	28	24	30
1951	Bradford	.. ..	57	39	30	38
	England and Wales	..	38	29	23	28

Table II *Cases of Poliomyelitis 1948—1951*

Ward	1948	1949	1950	1951	Total 1948-51	Attack rate	
						Persons per acre	per 1,000 population
Idle	-	2	7 (1)	-	9 (1)	3.7	.831
Thornton	1	1	2 (1)	-	4 (1)	4.2	.337
Tong	-	1	-	-	1	4.7	.070
North Bierley East ..	-	2 (1)	4	4	10 (1)	5.1	.607
Clayton	-	-	2	-	2	5.6	.160
Allerton	-	2	2	1	5	6.3	.335
Bolton	1	1 (1)	3	1 (1)	6 (2)	11.6	.493
Eccleshill	-	2	6	-	8	13.5	.407
North Bierley West ..	-	1	5 (1)	-	6 (1)	15.0	.302
Heaton	1	-	3	-	4	16.5	.272
Great Horton .. .	1	3 (1)	1	2	7 (1)	19.1	.429
West Bowling .. .	1	4 (2)	3	1	9 (2)	19.4	.546
East Bowling .. .	-	4 (1)	2	1	7 (1)	24.9	.491
North East	1	2	1	-	4	25.3	.282
Listerhills	-	1	2	1	4	28.4	.269
Exchange	-	-	1	- (1)	1 (1)	30.0	.077
South	1	-	1	-	2	33.5	.143
Bradford Moor .. .	1	3 (1)	2	1	7 (1)	37.8	.423
Little Horton .. .	-	-	4	-	4	40.1	.308
Manningham .. .	-	-	5	1	6	40.5	.401
Totals .. .	8	29 (7)	56 (3)	13 (2)	106 (12)		

Deaths in brackets

Table 12 *Summary of Work Executed in Factories and Workplaces 1951*

Summary of Work Executed						Factories	Work- places
No. of additional W.Cs. provided	..	..	..	..	..	70	12
No. of additional urinals provided	..	..	..	..	..	10	1
No. of obsolete urinals renewed	..	..	..	..	..	—	—
No. of existing conveniences provided with:							
(1) Sufficient ventilation	..	..	..	..	..	37	4
(2) Intervening ventilated spaces	..	..	..	..	..	52	3
(3) Notices indicating sex of user	..	..	..	..	..	30	2
(4) Effective screening	..	..	..	..	..	1	—
(5) Separate approaches	..	..	..	..	..	13	—
(6) Effective lighting by (day)	..	..	..	..	..	22	1
(7) Effective lighting by (night)	..	..	..	..	..	116	5

No. of Conveniences in connection with which:—

(1) (a) Top and walls were white-washed, colour-washed or otherwise cleansed	..	..	..	..	..	69	3
(b) Surfaces were painted, renewed or satisfactorily cleansed	..	..	..	..	..	66	9
(2) Sanitary fittings were repaired	..	..	..	..	..	8	1
(3) General repairs to structure were carried out	..	..	..	..	..	22	2
(4) Drains, soil pipes, ventilating shafts were repaired or renewed	..	..	..	..	..	33	4
(5) Drains were cleansed	..	..	..	..	..	2	1
(6) Drains were amended or reconstructed	..	..	..	..	..	29	8
(7) New drains were provided	..	..	..	..	..	66	12

Drain Testing:—

No. of colour tests—P	..	..	..	..	..	19	4
N	..	..	..	..	..	115	19
No. of volatile tests—P	..	..	..	..	..	5	—
N	..	..	..	..	..	3	1
No. of smoke tests—P	..	..	..	..	..	1	—
N	..	..	..	..	..	20	1
No. of hydraulic tests—P	..	..	..	..	..	—	—
N	..	..	..	..	..	—	—

Works Executed in Compliance with Provision of the Act enforced by H.M. Inspector, but supervised by the Local Authority:—

No. of wash basins, troughs or fountains provided	22	
No. of wash basins provided in workplace	—	19

Table 13 *Average Results of Analyses for Plumbo-Solvency of Water as Distributed*

			Lead	pH Value
Thornton Moor Water Supply:—				
45 samples—first draw	..	..	0·0000	7·2
After running to waste	..	..	0·0000	7·1
Intermediate Level Supply:—				
45 samples—first draw	..	..	0·0000	7·0
After running to waste	..	..	0·0000	7·0
Low Level Water Supply:—				
45 samples—first draw	..	..	0·0000	6·9
After running to waste	..	..	0·0000	6·9

Table 14 *Annual Deposits 1942-51* *Tons per Square Mile*

Year	Total Solids	Undissolved Matter Soluble in CS ₂ (Tarry Matter)	Insoluble in CS ₂ (Combustible Matter)	Ash	Sulphate as SO ₄	Chlorine as Cl	Lime as Ca
North							
1942	201.50	2.78	23.81	67.45	25.39	21.75	4.36
1943	173.72	6.13	17.50	34.91	25.83	26.57	7.49
1944	201.22	5.35	19.75	36.48	30.71	32.83	10.88
1945	194.91	3.60	36.12	40.34	29.31	19.96	7.90
1946	157.63	4.05	20.40	31.48	36.17	24.43	8.31
1947	214.10	2.96	36.31	74.52	29.13	17.56	3.37
1948	166.39	3.46	23.76	38.04	21.20	16.14	1.76
1949	177.48	2.71	28.29	39.93	32.40	18.97	3.49
1950	162.97	2.07	28.31	55.42	25.21	19.85	3.49
1951	190.03	5.00	24.01	58.01	31.94	19.28	3.81
Central							
1942	278.64	4.41	45.86	101.43	28.44	27.15	6.70
1943	234.77	6.42	36.20	70.88	26.40	24.82	8.58
1944	246.00	6.83	35.77	68.91	29.03	35.14	9.04
1945	276.86	3.82	53.35	80.20	34.34	23.20	8.61
1946	255.92	5.30	40.01	78.89	42.34	32.61	6.05
1947	232.00	4.25	45.41	81.11	31.20	22.11	5.26
1948	233.28	3.65	44.33	75.15	30.58	23.73	3.53
1949	222.77	2.89	37.46	60.27	38.00	24.51	4.53
1950	223.94	2.63	48.90	83.67	28.46	23.96	3.95
1951	250.08	6.35	49.03	78.57	32.60	33.13	4.68
Bierley Hall							
1950	142.51	2.39	24.82	41.86	22.47	19.84	3.83
1951	172.76	3.78	23.69	44.42	32.06	16.32	4.93
Chellow Heights							
1950	121.27	1.98	12.37	28.88	23.81	22.52	3.86
1951	143.45	3.56	10.16	27.70	27.99	17.70	7.93
Ambulance Depot							
1950 (7 Mos)	455.69	3.70	162.61	240.67	15.43	12.39	2.53
1951	807.22	11.61	241.91	437.21	41.44	18.65	7.32

Table 15 *Mean Monthly Deposits for 1951 Tons per Square Mile*

Station	Total Solids	Undissolved Matter		Ash	Sulphate as SO ₄	Chlorine as Cl	Lime as Ca
		Soluble in CS ₂ (Tarry Matter)	Insoluble in CS ₂ (Combustible Matter)				
North	15.83	.41	2.00	4.83	2.66	1.61	.32
Central	20.84	.53	4.08	6.54	2.71	2.76	.39
Bierley Hall	14.39	.31	1.97	3.70	2.67	1.36	.41
Chellow Heights	11.95	.28	.85	2.31	2.32	1.47	.66
Ambulance Depot	67.26	.96	20.16	36.43	3.45	1.55	.61

Table 16 *Results of Inspections and Action under Food and Drugs Act, 1938, and Shops Act, 1950*

Complaints investigated	126
Notices served	41
Informal letters sent	100
Notices complied with	73
Food and Drugs Act, Section 13. Contraventions rectified:—	
(a) Sanitary conveniences in direct communication with food room amended	—
(b) Drains in food premises abolished	—
(c) Walls, ceilings, floors, windows and doors repaired	100
(d) Walls, ceilings and doors painted, white washed or cleansed	400
(e) Use of sleeping rooms directly connected to food premises discontinued	2
(f) Ventilation provided or improved	5
(g) Refuse removed and floors cleansed	38
(h) Cleanliness of clothing and apparatus abated	48
(i) Hot water, wash basins, soap and towels provided	135
Industrial canteens visited	559
Details of work executed:—	
Additional sanitary accommodation provided	13
Ventilated space provided for sanitary accommodation	6
Water closet apartments lighted or ventilated	10
Water closet apartments cleansed	20
Water closet pedestals cleansed	14
Water closet general repairs	24
Water closet pedestals renewed	4
Water closet flushing apparatus amended	1
Waste water closets converted to W.C.	—
Soil pipes renewed	1
Waste water closets abolished	—
Choked drains cleansed	15
Drains amended	6
Drains reconstructed	6
Waste pipes trapped	1
Sinks renewed	31
Refuse bins provided	13
Urinals cleansed	—
Urinals amended or screened	7
Verminous premises dealt with	—
Prevention of Damage by Pests Act, 1949	6
Other nuisances	18
Drain Testing:	
Number of volatile, colour and smoke tests—Positive	7
Number of volatile, colour and smoke tests—Negative	40
H.M. Inspector's reports investigated	5
Reports to H.M. Inspector	—

Table 17

Trade	Grading at present time			Graded as "B" in January, 1951 Now upgraded to "A"
	"A"	"B"	"C"	
Bakers	318	35	—	51
Butchers	328	19	—	12
Confectioners	408	29	—	26
Fish, Fruit and Game ..	344	24	—	30
Grocers	861	81	—	106
Public Houses	347	62	—	53
Restaurants and Cafes	254	32	—	35
Tripe	43	—	—	—
Ice Cream and Drinks..	11	—	—	—
Fish Friers	278	17	—	58
Potato Crisp Manufacturers	2	—	—	—
Industrial Canteens ..	295	34	—	81
Clubs	117	3	—	12
Sweets	330	9	—	—
Pickle Manufacturers ..	3	—	—	—
School Dining Rooms and				
Kitchens	153	(including 34 school kitchens)		
School Nurseries ..	25			
Day Nurseries	9			
Industrial Nurseries ..	5			
Basement Bakehouses..	16			

There are now 4,261 premises within the City where food is sold, handled or prepared for human consumption.

Table 18 *Inspections and Contraventions under the Shops Act, 1950*

Number of shops on register	7,368
Number of shops visited where assistants are employed ..	1,847
Number of shops visited where young persons are employed	93
Total number of inspections	6,692

Offences Ascertained	No. of Cases	No. of Warnings
Prescribed form relating to half holiday of assistants not displayed	225	225
Correct meal times not allowed to assistants	—	—
Half holiday not allowed to assistants	—	—
Notice of day of weekly half holiday not fixed	42	42
Shop open after closing hour on weekly half holiday	—	—
Hawking on weekly half holiday after hour fixed by Order	—	—
Shop open after closing hour fixed by Closing Order	2	2
Selling in places after closing hour	5	5
Official copy of Closing Order not displayed in shop	—	—
Notices not displayed in mixed shops after closing hour	57	57

Sunday Trading Restrictions

Shop open for non-exempted sales	5	5
Notices not displayed stating purpose for which shop open	25	25
Without Form VII	1	1
Assistants employed on more than three Sundays in a month	—	—
Assistants not allowed a compensatory holiday	—	—

Young Persons

Abstract relating to young persons not displayed, Forms H and J	25	25
Young persons employed more than 48 hours per week	1	1
Young persons employed in shop after being employed in factory for permitted hours	—	—
Without Schedule of Young persons hours—Form I ²	28	28
Without overtime record—Form G	—	—
Without notice relating to seats—Form K	135	135
Young persons employed overtime in excess of yearly limit	3	3
Overtime worked by young persons in more than 6 weeks	—	—
TOTALS	554	554

Table 19 *Result of Legal Proceedings in the City Court*

Statute	Number of Summonses issued	Fines imposed	Costs awarded	Work done subsequent to service of summonses but before hearing	Remarks
Public Health Act, 1936		£ s. d.	£ s. d.	Without Costs	Costs Awarded
Section 93	20	19 0 0	15 0 0	3	9
Section 83	3	5 0 0	2 6 0	—	—
Section 52	1	10 0	—	—	—
Section 154	2	1 0 0	—	—	—
Section 290	—	—	—	—	—
					Appeal against notice. Appeal dis- missed. Appellant to pay £1/11/0 costs.
Shops Act, 1950 (Sunday Trading)	3	1 15 0	—	—	—
Food and Drugs Act, 1938	9	37 12 0	23 16 6	—	—
Furnished Houses Rent Control Act, 1946	2	15 0 0	5 4 6	—	—
					(a) To repay £1/19/0 (b) To repay £17/10/0 or two months imprisonment.

Table 20 *Table showing Number of Samples Procured and Examined
in 1951*

Nature of Sample	Number sub- mitted	Statutory Sample		Informal Sample	
		Genuine	Adult- erated	Genuine	Adult- erated
Apple Tart.. .. .	1	—	—	1	—
Back and Kidney Pills	1	—	—	1	—
Baking Powder	8	—	—	8	—
Baxen Tablet	1	—	—	1	—
Beef Sausage	25	17	8	—	—
Beef Suet	5	—	—	5	—
Bev	1	—	—	1	—
Bicarbonate of Soda	1	—	—	1	—
Borax	1	—	—	1	—
Brambles, seedless	1	—	—	1	—
Brawn	1	—	—	1	—
Breadcrumbs	2	—	—	2	—
Brisling in Tomato	3	—	—	3	—
Bronchial Lozenges	2	—	—	2	—
Butter	5	1	—	4	—
Butter Caramels	1	1	—	—	—
Cake Flour Mixture	1	—	—	1	—
Candied Peel	1	—	—	1	—
Certo Fruit Pectin	1	—	—	1	—
Cheese	3	—	—	3	—
Chicken and Ham Paste	1	—	—	1	—
Chicken Sandwich	2	2	—	—	—
Chocolate	1	—	—	1	—
Chocolate Sandwich Roll.. .. .	1	—	—	1	—
Chop Sauce	1	—	—	1	—
Cocoa	1	—	—	1	—
Coconut Cake Flour	1	—	—	1	—
Coffee and Chicory Essence	6	—	—	6	—
Coffee Extract	1	—	—	1	—
Colouring Essence.. .. .	1	—	—	1	—
Composition Essence	1	—	—	1	—
Compound Glycerine of Thymol B.P.	1	—	—	1	—
Concentrated Tomato Soup	6	—	—	6	—
Condensed Milk	4	—	—	4	—
Corn Flour.. .. .	1	—	—	1	—
Corn Salve.. .. .	1	—	—	1	—
Cough Candy	1	—	—	1	—
Cough Mixture	3	—	—	3	—
Crab Paste.. .. .	2	1	—	—	1
Cream	9	—	—	9	—
Curd Tarts.. .. .	2	—	—	2	—
Currants	1	—	—	1	—
Curry Powder	1	—	—	1	—
Custard	1	—	—	1	—
Custard Powder	2	—	—	2	—
Dates	1	—	—	1	—
Desiccated Coconut	4	—	—	4	—
Dried Bilberries	1	—	—	1	—
Dried Sage.. .. .	1	—	—	1	—
Dutch White Fondant	1	—	—	1	—
Edible Gelatine	1	—	—	1	—
Elderflowers, Peppermint and Composition Essence	1	—	—	1	—
Evaporated Milk	1	—	—	1	—

Table 20 *contd.*

Nature of Sample	Number sub- mitted	Statutory	Sample	Informal	Sample
		Genuine	Adult- erated	Genuine	Adult- erated
Fish Cakes.. .. .	15	4	—	11	—
Fish Paste	1	—	—	1	—
Flake Tapioca	1	1	—	—	—
Flavouring Essence	1	—	—	1	—
Fruit Laxative Tablets	1	—	—	1	—
Fruit Tart	1	—	—	1	—
Gelatine	2	—	—	2	—
Glace Cherries	1	—	—	1	—
Glenazo Inhalent	1	—	—	1	—
Golden Raising Powder	1	—	—	1	—
Gooseberry Tart	1	—	—	1	—
Ground Almonds	2	—	—	2	—
Hankies	1	—	—	1	—
Happy Journey Tablets	1	—	—	1	—
Haslet	1	—	—	—	1
Headache Powder.. .. .	3	—	—	3	—
Honey	1	—	—	1	—
Horseraddish Relish	1	—	—	1	—
Ice Cream	16	—	—	16	—
Ice Lollies	12	—	—	12	—
Indian Brandee	2	—	—	2	—
Influenza Mixture.. .. .	1	—	—	1	—
Jams	10	—	—	10	—
Jelly	3	—	—	3	—
Jelly Crystals	1	—	—	1	—
Kruschen Salts	1	—	—	1	—
Lard	1	—	—	1	—
Lemon Curd	6	—	—	6	—
Limeade	1	—	—	1	—
Liquid Paraffin	1	—	—	1	—
Liver Sausage	1	—	—	1	—
Lobster Paste	1	—	—	1	—
Luncheon Meat	3	—	—	2	1
Lung Syrup	1	—	—	1	—
Malt Vinegar	1	—	—	1	—
Malted Milk Tablets	2	—	—	2	—
Malted Oatmeal	1	—	—	1	—
Marmalade	1	—	—	1	—
Meat Paste.. .. .	4	—	—	3	1
Meat Pie	8	—	1	5	2
Meat and Potato Pie	1	—	—	1	—
Medicine	1	—	—	1	—
Mentholatum	1	—	—	1	—
Milk Chocolate Wafer	1	1	—	—	—
Milks	727	32	8	666	21
Mincemeat.. .. .	6	—	1	3	2
Mince Pie	1	—	—	1	—
Minced Beef and Dumpling	1	—	—	1	—
Mustard	1	—	—	1	—
Mustard Sauce	1	—	—	1	—
Oatmeal	1	1	—	—	—
Orange Flavour Essence	1	—	—	1	—
Orange Squash	2	1	—	—	1
Pepper	1	—	—	1	—
Pepper Flavour Compound	4	—	—	4	—
Pepsi Cola	1	—	—	1	—

Table 20 *contd.*

Nature of Sample	Number sub- mitted	Statutory	Sample	Informal	Sample
		Genuine	Adult- erated	Genuine	Adult- erated
Pickled Beetroot	2	—	—	2	—
Polony	4	—	—	4	—
Pork Sausage	11	4	6	1	—
Pork Sausage Meat	1	1	—	—	—
Potted Meat	3	—	—	3	—
Potted Meat Paste	1	—	—	1	—
Quinine Tablets	1	—	—	1	—
Raspberry Chest and Lung Mixture ..	1	—	—	1	—
Rice	3	—	—	3	—
Rum	1	—	—	1	—
Saccharin	2	—	—	2	—
Sage and Onion Stuffing	1	—	—	1	—
Salad Cream	9	—	—	9	—
Salami	1	—	—	1	—
Salt.. .. .	1	—	—	1	—
Sardines in Oil	3	—	—	—	3
Sauce	1	—	—	1	—
Sausages	14	7	2	4	1
Sausage Meat	2	1	1	—	—
Self Raising Flour	10	1	—	8	1
Soups	2	—	—	2	—
Sparkling Pineapple Crush	1	—	—	1	—
Sponge Flour Mixture	3	—	—	3	—
Sunny Spread	1	—	—	1	—
Sweet Coconut	1	—	—	1	—
Sweetened Sponge Mixture	1	—	—	1	—
Sweets	8	2	—	6	—
Syrup of Figs	1	—	—	1	—
Tea	11	1	—	10	—
Therm-o-rub	1	—	—	1	—
Tomato Sauce	1	—	—	1	—
Tonic Mixture	1	1	—	—	—
Tonic Stout	1	—	—	1	—
Unwashed Pears	2	—	—	2	—
Vanilla Flavouring	1	—	—	1	—
Vinegar	3	—	—	3	—
Vita Cream	1	—	—	1	—
Washed Pears	2	—	—	2	—
White Pepper	1	—	—	1	—
White Soft Paraffin B.P... .. .	1	—	—	1	—
Whiskies	7	7	—	—	—
Xmas Pudding	2	1	—	1	—
Yoghourt	2	—	—	2	—
Zinc Ointment	1	—	—	1	—
Total	1121	88	27	971	35

Table 21 *Feeding Stuffs Samples*

Dairy Mixture	4
Dairy Cubes	2
Groundnut Meal	1
Calf Starter Meal	1
Pig Meal No. 1	1
Pig Meal No. 2	2
Layers Mash No. 1a	3
Battery Layers Mash	1
Balancer Meal	3
Chick Starter Mash	1

Table 22 *Fertilisers Samples*

All Blood Fertiliser	1
Blended Bone Meal	2
Garden Lime	1
National Growmore Fertiliser	1
Organic Fertiliser	1
Organic National Growmore	2
Organic Tomato Special	1
Sulphate of Ammonia	3
Steamed Bone Flour	1
Superphosphate	1
Sulphate of Potash	1

Sanitary Inspections

Table 23 *Particulars of Work done 1947-51*

<i>Routine Visits and Inspections:</i>	1947	1948	1949	1950	1951
No. of Houses inspected under Public Health Acts	9,627	6,515	6,755	6,393	8,190
No. of Houses in respect of which notices were served requiring defects to be remedied	3,434	3,052	2,958	2,497	3,170
No. of Houses where defects remedied after formal notice:					
(a) By owners	2,695	3,039	2,195	2,344	1,908
(b) By L.A. on default	232	358	335	194	106
No. of ordinary visits	25,437	23,347	23,611	25,448	23,324
No. of Houses rendered fit without service of formal notices ..	1,231	1,047	875	831	841
No. of Houses inspected under Housing Acts	—	—	—	—	411
No. of Houses in respect of which notices were served requiring repairs	—	—	—	—	295
No. of Houses rendered fit after formal notice:					
(a) By owners	—	—	—	—	191
(b) By L.A. on default	—	—	—	—	28
No. of ordinary visits	—	—	—	—	3,778
<i>Inspections and Visits:</i>					
No. of complaints investigated ..	4,704	4,073	3,726	3,968	4,741
No. of ordinary visits and inspections (other than dwelling-houses) ..	1,858	1,826	2,181	1,933	2,232
No. of Factories and Workshops visits and inspections	265	246	349	99	1,503
No. of Offensive Trade Premises visits and inspections	104	121	140	152	140
No. of Schools inspected	114	96	148	124	127
No. of Graveyards inspected ..	26	10	1	2	3
No. of visits to Common Lodging Houses	212	96	160	107	92
No. of Houses-let-in-lodgings visited	2	7	2	13	73
No. of Canal Boats inspected ..	—	—	—	—	—
No. of Cinemas visited	69	48	32	52	109
No. of Piggeries inspected	5	29	26	29	72
<i>Drainage and Sanitary Arrangements:</i>					
Choked drains cleansed	571	588	633	732	683
Drains amended	220	273	243	256	257
Drains reconstructed	202	330	424	353	381
Extra drains provided	98	123	124	204	261
Cellars drained	4	3	6	9	15
Drains underneath houses abolished	7	7	3	3	1
Drainage systems intercepted from sewer	3	7	10	10	16
Open drain inlets trapped	5	9	12	15	35
Waste pipes trapped	47	42	45	68	75
Waste pipes disconnected	44	43	44	83	92
Rainwater pipes disconnected ..	25	70	81	72	116

Table 23 *contd.*

	1947	1948	1949	1950	1951
Rainwater conductors repaired or renewed	1,065	889	750	860	707
Sinks replaced	124	187	273	306	221
Sink waste pipes repaired or renewed	—	—	—	69	195
No. of Houses reported for provision of water closets	34	63	97	108	103
Water closet pedestals renewed ..	143	210	96	108	134
Water closets and flushing apparatus repaired	178	234	205	205	217
Water closets cleansed	19	26	24	21	15
Water closet apartments cleansed and lime-washed	6	25	44	15	3
W.C. apartments properly lighted and ventilated	9	18	15	13	60
General repairs to water closets ..	387	391	339	314	327
Additional W.C. accommodation provided	72	85	103	101	136
Soil pipes repaired and renewed ..	48	70	61	48	64
Indoor soil pipes abolished	1	—	—	—	—
Privy apartments cleansed and lime-washed	—	—	1	1	1
Privy structures abolished	—	—	3	5	13
Ashpits abolished	7	13	5	—	3
Absence of or defective dustbin referred to Cleansing Dept. ..	—	—	—	—	54
Urinals cleansed, amended, or screened	8	9	11	5	13
Urinals remodelled	1	1	1	1	2
New urinals provided	1	—	—	1	1

Dwelling-houses, etc.:

Dampness excluded	496	699	610	836	781
Roofs repaired	881	706	516	788	666
Houses or parts cleansed and lime-washed	13	23	31	32	54
Verminous houses dealt with ..	58	85	81	97	57
Ventilation improved	28	35	38	47	18
Windowcords repaired or renewed	280	674	1,016	1,235	936
Lighting improved	3	10	16	8	9
General repairs executed	1,364	2,109	2,377	2,541	2,155
Kitchen ranges repaired or renewed	131	213	246	234	248
Washing coppers provided or renewed	37	48	68	60	54
Handrails provided	2	3	2	2	8

Table 23 *contd.*

	1947	1948	1949	1950	1951
New food stores provided and ventilated	1	—	10	—	5
Water supply improved	108	110	140	166	150
Houses supplied with water ..	4	6	2	—	5
Outbuildings repaired	5	2	13	9	16
Overcrowding abated	—	—	—	20	10
Cellar areas cleansed	1	—	3	—	2
<i>Courts, Back-yards, Stable-yards, etc.:</i>					
Yard and passage paving repaired	35	48	36	34	28
Yards repaved	2	11	6	14	3
Yards and passages newly paved..	1	—	2	—	3
Yards cleansed	8	9	12	9	16
Passages cleansed and limewashed	—	—	—	—	—
Manure pits repaired	—	—	1	1	—
Manure pits provided	—	—	—	—	—
<i>Keeping of Animals, etc.:</i>					
Improper keeping of swine prohibited	—	—	2	2	3
Piggeries repaired	—	—	—	—	—
New piggeries provided	—	1	1	—	—
Piggeries abolished or disused ..	—	—	—	2	1
Improper keeping of fowls, etc., prohibited	8	15	21	15	16
Accumulations of offensive matter, etc., removed	42	47	71	56	66
Accumulations of manure removed	3	3	3	3	2
<i>Infectious Diseases:</i>					
No. of Zymotic Diseases investigated	1,104	1,170	969	1,317	952
<i>Drain Testing:</i>					
Number of volatile tests:					
Positive	35	82	69	75	52
Negative	655	810	723	740	620
No. of colour tests:					
Positive	152	280	294	249	239
Negative	958	1,231	1,335	1,383	1,453
Number of smoke tests (Rocket):					
Positive	16	29	38	32	26
Negative	31	68	88	75	81
<i>Miscellaneous Nuisances:</i>					
Dangerous places referred to City Engineer					
	83	49	80	73	118
Dangerous places made secure ..	30	46	36	36	22
Choked street gulleys reported ..	76	99	103	91	158
Wastes of water reported	102	56	57	46	111
Samples of water taken for:					
(a) Chemical Analysis	111	154	218	267	259
(b) Bacteriological Examination	361	249	371	386	297
Offensive Trades	—	—	—	—	—
Effluvium Nuisances abated ..	1	13	8	10	9

The specialised work called for under the Factories Act, 1937, the Food and Drugs Act, 1938, etc., was carried out by specialist inspectors as follows:—

Table 24 FACTORIES

*Inspections for Purposes of Provisions as to Health,
Including Inspections made by Sanitary Inspectors*

Premises	Number on Register	Inspections	Number of Written Notices	Occupiers Prosecuted
FACTORIES in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	271	423	39	—
FACTORIES not included in (i) to which Section 7 is enforced by Local Authorities	2,405	1,076	73	1
Other PREMISES in which Section 7 is enforced by Local Authorities (excluding outworkers' premises) ..	20	—	—	—
TOTAL	2,696	1,499	112	1

Defects Found

Particulars	Number of Defects				Number of cases in	
	Found	Remedied	Referred to H.M. Inspector	Referred by H.M. Inspector	which Prose- cutions were instituted	
Want of cleanliness	27	12	—	8	—	
Overcrowding	—	—	—	—	—	
Unreasonable temperature ..	8	7	—	14	—	
Inadequate ventilation ..	2	—	—	—	—	
Ineffective drainage of floors ..	—	—	—	—	—	
Sanitary accommodation { insufficient ..	6	9	—	17	1	
{ unsuitable or defective ..	55	34	—	30	—	
{ not separate for sexes ..	4	2	—	—	—	
Other Offences	119	86	1	29	—	

(Not including offences relating to Home Work or offences under the Sections mentioned in the Schedule to the Ministry of Health (Factory and Workshops Transfer of Powers) Order, 1921, and re-enacted in the Third Schedule to the Factories Act, 1937.)

TOTALS	221	150	1	98	1	
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Table 25 *Meat Inspection. Carcases Inspected and Condemned*

				Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed	..	..	..	11,872	5,936	14,556	34,433	8,187
Number inspected	..	..	..	11,872	5,936	14,556	34,433	8,187
<i>All Diseases except Tuberculosis:—</i>								
Whole carcases condemned	..	..	..	6	22	617	91	150
Carcases of which some part or organ was condemned	..	..	..	3,251	2,702	47	1,879	834
Percentage of number inspected affected with disease	..	..	..	27·4	45·8	4·5	5·7	12·0
<i>Tuberculosis only:—</i>								
Whole carcases condemned	..	..	..	29	122	5	—	28
Carcases of which some part or organ was condemned	..	..	..	1,321	2,741	—	—	760
Percentage of number inspected affected with Tuberculosis (approx.) ..	..	..	..	11·3	48·2	0·03	—	9·4

Table 26

Whole Carcasses and Offal Condemned 1951

			Bulls	Cows	Bullocks	Heifers	Calves	Sheep	Pigs
Decomposition (general)	..	—	—	—	—	—	—	2	11
Dropsy (general)	..	—	3	—	—	—	7	31	11
Emaciation	..	—	5	—	—	—	11	47	2
Erysipelas (acute swine)	..	—	—	—	—	—	—	—	10
Fever (acute)	..	—	—	—	—	—	4	1	86
Immaturity	..	—	—	—	—	—	148	—	—
Jaundice	..	—	—	—	—	—	30	—	2
Pyæmia	..	—	—	1	—	—	412	—	8
Septicæmia	..	2	10	1	1	2	7	—	18
Tuberculosis	..	1	122	5	23	5	—	—	28
Bruising	..	—	1	—	—	3	1	—	—
Malignant Neoplasms	..	1	3	—	—	—	—	—	2
Moribund	..	—	—	—	—	—	2	—	—
Totals	..	4	144	7	24	622	91	178	

The condemnation of partial carcasses and organs are shown in the following table :—

Table 27

Partial Carcasses and Organs Condemned 1951

		Partial Carcase	Lungs	Heart	Stomach and Intestine	Liver	Pluck	Udder	Head
Abscess	Beasts	6	60	—	{ S. 87 } I. 40	2,858	—	35	131
	Sheep	7	—	—	—	160	2	—	—
	Calves	—	—	—	—	—	—	—	—
	Pigs	4	—	—	—	5	—	—	18
Inflammatory Conditions	Beast	—	75	69	{ S. 80 } I. 67	197	—	70	—
	Sheep	—	—	—	—	—	18	—	—
	Calves	—	—	—	—	—	—	—	—
	Pigs	4	—	—	206	—	18	—	—
Parasitic Conditions	Beast	—	110	—	{ S. — } I. 152	7,142	—	—	—
	Sheep	—	—	—	—	1,509	63	—	—
	Calves	—	—	—	—	—	—	—	—
	Pigs	—	—	—	—	32	65	—	—
Tuberculosis	Beast	28	1,865	98	{ S. 195 } I. 608	603	—	9	420
	Sheep	—	—	—	—	—	—	—	—
	Calves	—	—	—	—	—	—	—	—
	Pigs	—	—	—	507	—	440	—	129
Miscellaneous	Beast	86	105	31	{ S. 52 } I. 94	52	—	—	32
	Sheep	10	—	—	—	—	—	—	—
	Calves	—	—	—	—	—	—	—	—
	Pigs	56	—	—	11	—	16	—	11

Table 28

Various Condemned Foods

					tons	cwts.	qrs.	lbs.
Apples	..	..	..	..	—	—	1	12
Blackberries	..	..	..	..	—	—	1	20
Butter	..	..	..	..	—	—	—	3
Cabbage	..	..	..	..	5	—	—	24
Carrots	..	..	..	..	7	6	2	8
Cauliflower	..	..	..	..	7	19	1	20
Celery..	..	..	..	..	—	8	3	20
Cereals	..	..	..	..	2	17	2	7
Cheese	..	..	..	..	—	7	—	13
Dry Fish	..	..	..	..	—	7	—	14
Dried Fruit	..	..	..	..	—	5	2	—
Fats ..	..	..	..	..	—	3	—	18
Lettuce	..	..	..	..	—	11	3	4
Onions	..	..	..	..	6	19	—	—
Pears ..	..	..	..	..	—	9	2	4
Peas ..	..	..	..	..	1	12	1	2
Plums..	..	..	..	..	—	2	—	2
Potatoes	..	..	..	..	—	1	—	—
Rabbits	..	..	..	..	—	—	2	23
Radishes	..	..	..	..	—	3	2	10
Savoys	..	..	..	..	—	17	2	—
Shellfish	..	..	..	..	—	—	3	14
Soft Fruits	..	..	..	..	—	2	—	10
Sprouts	..	..	..	..	2	10	3	16
Sugar ..	..	..	..	..	—	—	3	16
Sweets	..	..	..	..	—	—	1	12
Tea ..	..	..	..	..	—	1	3	4
Tomatoes	..	..	..	..	—	7	—	6
Wet Fish	..	..	..	..	2	14	1	11
Miscellaneous..	..	..	..	..	—	10	2	7
Total	..	..	..	..	42	2	2	20

Table 29

Condemned Tinned Goods

							No. of Tins
Meat	..	..	..	..	..	..	3,146
Fish	..	..	..	..	..	..	1,753
Milk	..	..	..	..	..	..	1,630
Vegetables..	..	..	..	..	..	..	2,671
Soup	..	..	..	..	..	..	2,103
Jam	..	..	..	..	..	..	75
Fruit	..	..	..	..	..	..	3,527
Miscellaneous	..	..	..	..	..	..	1,162
Total	..	..	..	..	..	..	16,067

Table 30 *Total Weight of Meat Condemned*

						<i>Home Killed</i>
Beef:	whole carcasses	..	..	..	..	87,416 lbs.
	part	..	..	..	..	9,831 lbs.
Sheep:	whole	..	..	..	..	3,258 lbs.
	part	..	..	..	..	674 lbs.
Calf:	whole	..	..	..	..	23,732 lbs.
Pig:	whole	..	..	..	..	15,201 lbs.
	part	..	..	..	..	1,743 lbs.
Total						141,855 lbs.

						<i>Imported Meat and Other Goods</i>
Beef	..	..	..	..	..	371 lbs.
Pork	..	..	..	..	..	374 lbs.
Pie Meat	..	..	..	..	..	175 lbs.
Sausage	..	..	..	..	..	30 lbs.
Black Puddings	..	..	..	..	..	204 lbs.
Total						1,154 lbs.

						<i>Weight of Offals Condemned</i>
Beef	..	..	..	..	..	199,634 lbs.
Sheep	..	..	..	..	..	4,501 lbs.
Calves	..	..	..	..	..	5,629 lbs.
Pigs	..	..	..	..	..	14,439 lbs.
Total						224,203 lbs.

Total weights of meats condemned 367,212 lbs., that is 163 tons, 18 cwts., 2 qrs.
1 st. 6 lbs.

Table 31
Outworkers' List, Section 110

Nature of Work	Lists received from Employers			Notices served, etc.	Outwork in infected premises	Prosecutions failing to send in forms
	Number of outworkers on the register, year ending 1951	Contractor	Workmen			
Wearing Apparel:						
(1) Making, etc. 	} 54	113	294	—	—	—
(2) Cleaning and Washing ..						
Furniture and Upholstery 	2	3	2	—	—	—
Curtains and Furniture Hangings ..	2	—	7	—	—	—
Household Linens 	2	7	—	—	—	—
Umbrellas 	1	1	—	—	—	—
Weaving (Burling) 	62	165	509	—	—	—
Locks, Latches and Keys 	1	1	—	—	—	—

Table 32

Housing Statistics 1951

1. The number of houses which on inspection were considered to be unfit for human habitation	390
2. The number of houses the defects in which were remedied in consequence of informal action by the Local Authority or their officers	29
3. The number of representations made to the Local Authority with a view to:	
(a) the serving of notices requiring the execution of works	308
or	
(b) the making of demolition orders	24
4. The number of notices served requiring the execution of works	279
5. The number of houses which were rendered fit after service of formal notices	219
6. The number of demolition orders made	46*
7. The number of houses in respect of which an undertaking was accepted under Section 11 of the Housing Act, 1936	—
8. The number of houses demolished	42
9. Number of dwellings overcrowded on 1st January, 1951	1,574
10. Number of houses becoming overcrowded between 1st January, 1951 and 31st December, 1951	137
11. Number of houses decrowded between 1st January, 1951 and 31st December, 1951	192
12. Number of overcrowded houses on 31st December, 1951	1,519

The number of houses closed as being unfit for human habitation under the Bradford Corporation Gas and Improvement Act, 1871 36

* This figure includes 22 houses represented in 1950 as a clearance area and confirmed as the Carlton and Tumbling Hill Streets Clearance Order, in 1951.

